



This is a digital copy of a book that was preserved for generations on library shelves before it was carefully scanned by Google as part of a project to make the world's books discoverable online.

It has survived long enough for the copyright to expire and the book to enter the public domain. A public domain book is one that was never subject to copyright or whose legal copyright term has expired. Whether a book is in the public domain may vary country to country. Public domain books are our gateways to the past, representing a wealth of history, culture and knowledge that's often difficult to discover.

Marks, notations and other marginalia present in the original volume will appear in this file - a reminder of this book's long journey from the publisher to a library and finally to you.

Usage guidelines

Google is proud to partner with libraries to digitize public domain materials and make them widely accessible. Public domain books belong to the public and we are merely their custodians. Nevertheless, this work is expensive, so in order to keep providing this resource, we have taken steps to prevent abuse by commercial parties, including placing technical restrictions on automated querying.

We also ask that you:

- + *Make non-commercial use of the files* We designed Google Book Search for use by individuals, and we request that you use these files for personal, non-commercial purposes.
- + *Refrain from automated querying* Do not send automated queries of any sort to Google's system: If you are conducting research on machine translation, optical character recognition or other areas where access to a large amount of text is helpful, please contact us. We encourage the use of public domain materials for these purposes and may be able to help.
- + *Maintain attribution* The Google "watermark" you see on each file is essential for informing people about this project and helping them find additional materials through Google Book Search. Please do not remove it.
- + *Keep it legal* Whatever your use, remember that you are responsible for ensuring that what you are doing is legal. Do not assume that just because we believe a book is in the public domain for users in the United States, that the work is also in the public domain for users in other countries. Whether a book is still in copyright varies from country to country, and we can't offer guidance on whether any specific use of any specific book is allowed. Please do not assume that a book's appearance in Google Book Search means it can be used in any manner anywhere in the world. Copyright infringement liability can be quite severe.

About Google Book Search

Google's mission is to organize the world's information and to make it universally accessible and useful. Google Book Search helps readers discover the world's books while helping authors and publishers reach new audiences. You can search through the full text of this book on the web at <http://books.google.com/>

6

Harvard College Library



FROM THE

BRIGHT LEGACY

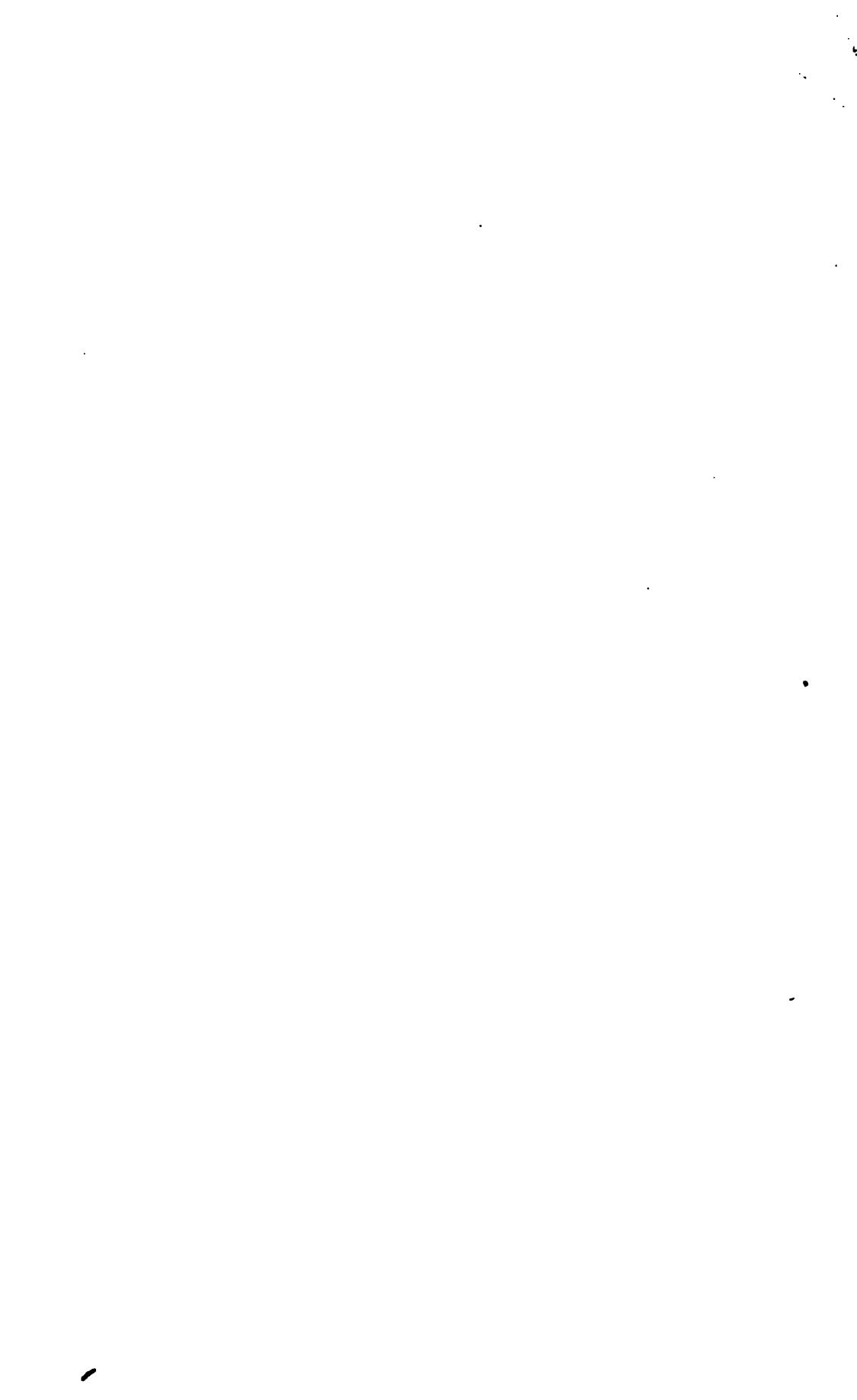
One half the income from this Legacy, which was received in 1680 under the will of

JONATHAN BROWN BRIGHT
of Waltham, Massachusetts, is to be expended for books
for the College Library. The other half of the income
is devoted to scholarships in Harvard University for the
benefit of descendants of

HENRY BRIGHT, JR.,
who died at Watertown, Massachusetts, in 1686. In the
absence of such descendants, other persons are eligible
to the scholarships. The will requires that this announce-
ment shall be made in every book added to the Library
under its provisions.







THROUGH
UNKNOWN AFRICAN COUNTRIES







Yours faithfully
A. Geraldine Smith

THROUGH
UNKNOWN AFRICAN COUNTRIES

*THE FIRST EXPEDITION FROM SOMALILAND
TO LAKE RUDOLF*

BY

A. DONALDSON SMITH, M.D., F.R.G.S.

HONORARY MEMBER OF THE ACADEMY OF NATIONAL SCIENCES
PHILADELPHIA

Illustrated

EDWARD ARNOLD

Publisher to the India Office

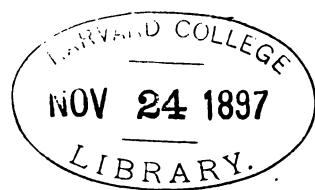
LONDON
37 BEDFORD STREET

NEW YORK
70 FIFTH AVENUE

1897

Afr 6455.6

I. 585.8



Right hand.

Copyright, 1897.

BY EDWARD ARNOLD.

University Press:

JOHN WILSON AND SON, CAMBRIDGE, U.S.A.

CONTENTS.

CHAPTER I.

	PAGE
INTRODUCTORY	I

CHAPTER II.

ARRIVAL AT ADEN — HAJI HASSAN — HIS DISCREET CHARACTER — MAKING CONTRACTS WITH MY MEN — VOYAGE TO BERBERA — THE START — DESCRIPTION OF THE SOMALIS — AN ODD MARRIAGE CUSTOM — TRIBAL DIVISIONS — THE HABR-AWAL	6
--	---

CHAPTER III.

ARRIVAL AT HARGESA — CRUELTY TO PONIES — ACROSS THE DESERT TO MILMIL — THE OGADEN SOMALIS — LION-SHOOTING — A CURIOUS HAIRLESS MOLE — AT SESSABANE — RAIDS OF THE ABYSSINIANS — TREES AND FRUIT — BEAUTIFUL BIRDS — CRUEL TREATMENT OF OLD WOMEN — DRILLING THE BOYS — WE LEAVE LAFKEI — AN ANNOYING PLANT — MEETING WITH CAPT. C. J. PERCIVAL — UNKNOWN COUNTRY AHEAD	18
--	----

CHAPTER IV.

TURFA TUG — SHOOTING RHINOCEROSES — A SIDE-TRIP TO THE RIVER ERER — NARROW ESCAPE FROM A RHINOCEROS — WE ARE OBLIGED TO LIFT THE CAMELS OVER ROCKS — A BEAUTIFUL VALLEY — IMPOSSIBLE TO CROSS THE ERER WITH CAMELS — RETURN TO THE CARAVAN — MR. FRED GILLETT'S LION AND LEOPARD HUNT — WE MARCH SOUTH TO THE SHEBELI RIVER — THE RIVER FLOODED — DHUM PALMS — GREAT DIFFICULTY IN CROSSING THE WEBI	
--	--

	PAGE
SHEBELI — MULE CAUGHT BY A CROCODILE — MAN DROWNED — A MULE AND TWO PONIES LOST — FIRST FOOTSTEPS IN THE COUNTRY OF THE ARUSA GALLAS — WE CAPTURE TWO NATIVES — NEWS OF A TOWN BUILT OF STONE — I DISCOVER A SMALL RIVER — THE GALLAS ARE FRIENDLY	29

CHAPTER V.

THE ARUSA GALLAS — GALLA CHIEFS TELL ME OF ABYSSINIAN DEP- REDATIONS — THE COUNTRY OF THE ARUSA GALLAS — A DE- LIGHTFUL CHANGE — EXCELLENT FARMING LANDS — WE MEET AN ABYSSINIAN — AMUSING THE INHABITANTS OF LUKU — ARRIVAL AT SHEIKH HUSEIN — REMARKABLE DISCOVERIES — THE TOMB OF SHEIKH HUSEIN — AN INTERESTING RECEPTION — WE FIND OUR- SELVES IN AN ABYSSINIAN STRONGHOLD — MT. ABOUGASIN — THE HEIGHT OF HOSPITALITY ON THE PART OF AN ABYSSINIAN OFFICER — MY BOYS REVOLT — COLD AND RAINY — MR. FRED GILLETT'S ELEPHANT HUNT — MIRACLES WROUGHT BY SHEIKH HUSEIN — NATIVES — A KUDU DRIVE — SUMMONS FROM THE ABYSSINIAN GENERAL — GILLETT STARTS FOR GINEA — A CURIOUS ANIMAL — GUINEA-FOWL JOURNEY TO THE ABYSSINIAN TOWN — MY FRIEND'S ACCOUNT	45
--	----

CHAPTER VI.

THE ABYSSINIANS GIVE ME A ROYAL RECEPTION — THE TOWN OF GINEA — OFFERS OF WIVES — GENERAL WAL-DA-GUBBRA AND HIS FAMILY — THE ABYSSINIANS — FRENCH INFLUENCE — I WRITE TO EMPEROR MENELEK — AN ELEPHANT HUNT — A GREAT DIS- COVERY — A VERY BEAUTIFUL AND CURIOUS SUBTERRANEAN PAS- SAGE ; THE CAVES OF WYNDLAWN — MEETING THE CARAVAN AGAIN AT SHEIKH MOHAMMED — LONG DELAYS — AN EXTINCT CRATER — BEAUTIFUL NEW BIRD — WE CAN WAIT NO LONGER — MARCH TO THE BUDDA	73
--	----

CHAPTER VII.

SURPRISED BY THE ABYSSINIANS — THE SOMALIS SHOW THEIR METTLE — A DANGEROUS PREDICAMENT — EMPEROR MENELEK ORDERS US TO RETURN THE WAY WE CAME — GLOOMY PROSPECTS — SALAN MOHAMMED — WAL-DA-GUBBRA NOT TO BLAME — WE BID GOOD-BY

CONTENTS.

vii

	PAGE
TO THE GOOD OLD ABYSSINIAN GENERAL — AN AMUSING REQUEST FROM WAL-DA-GUBBRA'S DAUGHTER — MARCHING TOWARDS SO- MALILAND AGAIN — THE HAWATU AND DARO MOUNTAINS — I RECEIVE A LETTER FROM EMPEROR MENELEK SAYING THAT HE DID NOT FORBID MY GOING THROUGH HIS COUNTRY — WE TURN SOUTH — HOPES DISPELLED — WAL-DA-GUBBRA AND HIS ARMY STOP US ON THE LAGA TUG — THE EXPEDITION A HARD ONE — AT THE SHEBELI RIVER ONCE MORE	97

CHAPTER VIII.

I SEND TO BERBERA FOR CLOTH AND LETTERS — A RAIDING PARTY OF OGADEN SOMALIS — WE CROSS THE RIVER — A CROCODILE GIVES US A CHILL — A PLEASANT SURPRISE — CHRISTMAS WITH PRINCE BORIS — CHARGED BY AN ORYX — I AM FORTUNATE IN BEING ABLE TO BUY RICE — LIONS ABOUT — NEW YEAR'S DAY NOTES — LIONS AND HYENAS — A HOT DESERT — AFRICAN CHILDHOOD — REPORTS OF SMALL-POX	109
---	-----

CHAPTER IX

ALONG THE SHEBELI RIVER FROM MARAKADUDU TO BARI — DARING CROCODILES — A NATIVE COUNCIL OF WAR — BEAUTIFUL BIRDS — I SHOW A WAR PARTY OF NATIVES THE DIFFERENCE BETWEEN A RIFLE AND A SPEAR — WE ASTONISH THE NATIVES — GELEDI AND BARI — WE WAIT FOR SALAN — ANNOYING INSECTS — ONE CANNOT MOVE FAST IN AFRICA — FISHING — I HOLD A CLINIC — NATIVES BECOME INSOLENT — FRIGHTENED BY ROCKETS — MY FRIEND'S AMUSING STORY	123
---	-----

CHAPTER X.

SAD NEWS FOR MY FRIEND — MR. FRED GILLETT LEAVES FOR BERBERA — I SEND OUT A PART OF MY NATURAL-HISTORY COLLECTION — THE WHOLE CAMP DOWN WITH FEVER — OFF AGAIN TOWARD LAKE RUDOLF — A CASE OF BLACKMAIL — MUCH SICKNESS — AFRICAN WELLS — GAME AND THE EFFECTS OF CERTAIN RIFLES — TRYING FOR LIONS BY NIGHT — AMONG THE DAGODI	135
--	-----

CHAPTER XI.

	PAGE
BATTLE BETWEEN LIONS AND HYENAS — SHOOTING A LIONESS — POISONOUS SNAKES — WE ARRIVE AT THE RIVER WEB — THE NATIVES FLEE — MARCHING DOWN TO THE JUB — COLLECTING AND SHOOTING — A FIGHT AVERTED — WE CROSS THE JUB, ASSISTED BY THE ADONES, OR NEGROES — THE DAGODI ABOUT THE RIVERS JUB AND DAWA — MY AFGAB GUIDE RETURNS TO HIS TRIBE — THE BEAUTIFUL VALLEY OF THE DAWA — PHOTOGRAPHS AND PROVISIONS DAMAGED	144

CHAPTER XII.

THE GERE GALLAS — FRIGHTFUL HURRICANES — AMUSING NATIVES — THE GIRLS ARE NOT BASHFUL — INTOXICATED NATIVES — MONKEYS AND LIONS — CURIOUS FISH — A MOUNTAINOUS COUNTRY — REPORTED LAKE — SHOOTING WALLER'S GAZELLES — EL MODU — TAME STARLINGS — I GO ON A SHOOTING-TRIP — OBLIGED TO THROW AWAY LUXURIES — MY GUN-BEARERS: YUSIF, KARSHA, ADEN AOULE, AND MOGA — DISTRESSING MARCHES TO AIMOLA — WE FRIGHTEN THE NATIVES	160
--	-----

CHAPTER XIII.

I AM OBLIGED TO SEIZE NATIVE CAMELS — ELEPHANT SHOOTING — WALLER'S GAZELLES — THE NATIVES ARE PLEASED — THE SAKUYU BORAN — THE BORAN AND THEIR KING, ABOFILATO — ELEPHANTS AT CLOSE QUARTERS — CHARGED BY A RHINOCEROS — IN THE COUNTRY OF THE BORAN	174
--	-----

CHAPTER XIV.

THE BEAUTIES OF EL DERE — ATTEMPTED MURDER — THE GABRA AND HIS OUTFIT — DIFFICULT MARCHING — MY CARAVAN AT NIGHT — HAWAYI SOMALIS AND GABRA — ANCIENT WELLS AT LE — THE NATIVES BEGIN TO ACT SUSPICIOUSLY — MORE REMARKABLE WELLS — SHOOTING GAZELLES IN A THUNDERSTORM — KNOCKED INSENSIBLE BY LIGHTNING — IN DANGER FROM NATIVES .	182
--	-----

CHAPTER XV.

	PAGE
THE BORAN KILL ONE OF MY BOYS AND WOUND ANOTHER — ELMI AVENGED — AN EXTINCT VOLCANO — IN DANGER FROM ABOFILATO'S ARMY — EXCITING NIGHTS — THE BATTLE — MOGA KILLED — THE BORAN SUE FOR PEACE	193

CHAPTER XVI.

A SUSPICIOUS CHARACTER — MOST OF MY ANIMALS RETURNED — I DETERMINE TO EXPLORE LAKE ABAYA — THE ASEBA AND KARAYU (BORAN) — A CRUEL PRACTICE — MY PRESENT TO ABOFILATO — THROUGH A ROUGH COUNTRY — "OLD KING COLE" — AT AR- GASSA — ABOFILATO'S SON — SHOOTING OSTRICHES, GIRAFFES, AND OTHER GAME — LOFTY MOUNTAINS — THE AMARA — THE DEATH OF PRINCE RUSPOLI — I TRY AMARA HOSPITALITY — AN UN- COMFORTABLE NIGHT	205
--	-----

CHAPTER XVII

MARCH TO THE GALANA AMARA (RIVER) — SHOOTING RHINOCEROSES AND ELEPHANTS — INEFFICIENCY OF LARGE-BORE RIFLES — MOS- QUITOES AND GENDI FLIES — CAMP ON THE GALANA AMARA — THE WORK ATTACHED TO EXPLORATION — A BIG ELEPHANT — I START FOR LAKE ABAYA — TWO OF MY BOYS WOUNDED BY AN ENRAGED RHINOCEROS — DIFFICULTY IN URGING MY MEN TO FOLLOW ME — BEAUTIFUL LAKE ABAYA — MUCH ANIMAL LIFE — THE COUN- TRY TO THE NORTH, AND THEORIES REGARDING THE OMO RIVER — MANY TRIBES — ORIGIN OF THE GALANA AMARA — SPORT — A HUNGRY LOT	221
---	-----

CHAPTER XVIII.

RETURN TO CARAVAN — NIGHT ATTACK BY A RHINOCEROS — THE AMARA DISPLEASED BECAUSE I WOULD NOT JOIN THEM IN THEIR RAID — "TIME DOES NOT COUNT" — THREATENING COUNTRY AHEAD — MUCH GAME — THROUGH DENSE JUNGLES — WE FIND	
--	--

SOME KONSO PEOPLE — THE CAMELS SHOW SIGNS OF POISONING FROM THE GENDI FLY — ON THE TERTALA PLATEAU LANDS — FORCING THE NATIVES TO TRADE — AN ELEPHANT AMONG THE CAMELS — A BORAN GIRL JOINS THE CARAVAN — OLA FINDS CLOTHES A NUISANCE	234
--	-----

CHAPTER XIX.

LAKE STEPHANIE IN SIGHT — THE GALANA AMARA EMPTIES INTO LAKE STEPHANIE — SIDE TRIP TO THE LAKE — FISHES AND BIRDS — SHOOTING A RHINOCEROS — DODSON AND I JOIN THE CARAVAN BY THE RIVER — THE WATU — IMPOSSIBLE TO CROSS THE GALANA — ALL THE WAY AROUND THE LAKE — I AM AT LAST SUCCESSFUL IN JOINING MY LINE OF MARCH FROM BERBERA WITH THAT OF COUNT TELEKI MADE FROM THE SOUTH — CATFISH — A NEW LAKE — A DARING WARRIOR — THE ARBORE CORNFIELDS	247
---	-----

CHAPTER XX.

TRYING TO MAKE FRIENDS WITH THE ARBORE — I FIND MYSELF IN A DANGEROUS POSITION, SURROUNDED BY DANCING AND YELLING WARRIORS — TREACHERY — DESCRIPTION OF THE ARBORE — SOUNDS OF WAR — THE ARBORE ATTACK OUR CAMP — FIGHT IN THE BUSHES — THE THREE PROUD KINGS — WE CAMP NEAR THE ARBORE VILLAGES — I FORCE THE ARBORE TO EXCHANGE MANY OF THEIR CATTLE AND DONKEYS FOR TRADING GOODS — THE LAST OF MY MULES — WE VISIT THE BURLE — OLA FLIRTS WITH ONE OF MY BORAN GUIDES — THE BURLE OR BURA — RELIGIOUS FORMS — OLA FINDS A HUSBAND — SHE DESCRIBES HER WEDDING CEREMONY	257
--	-----

CHAPTER XXI.

I DISCOVER A TRIBE OF UNDERSIZED MEN AND WOMEN — THE DUME ARE SUSPICIOUS — DESCRIPTION OF THE DUME PYGMIES — AMUSING INCIDENTS — THE KULI AND OTHER TRIBES — WE CANNOT CROSS THE ARO MOUNTAINS — THE BUNNO — EXCITING TIMES — A DIFFICULT ASCENT BEFORE US	272
--	-----

CHAPTER XXII.

	PAGE
THE FOURTH OF JULY IN AFRICA — AN UNFORTUNATE OCCURRENCE — NATIVES ATTEMPT TO LOOT US, USING BEES AS ALLIES — THE AMAR ARE AFRAID TO ATTACK US — TWO PRISONERS — WADING BAREFOOTED DOWN A RIVER — “SLEEPY EYES” AND “ZEBRA HIDE” GET INTO A TIGHT PLACE — BEAUTIFUL MONKEYS — AFTER WADING FIVE DAYS, WE LEAVE THE RIVER	283

CHAPTER XXIII.

LAKE RUDOLF IN SIGHT AT LAST — I INDULGE IN A LITTLE SENTIMENTAL WRITING OCCASIONALLY — NEAR RUSIA — A RIGHT AND LEFT SHOT — SENEGAL ANTELOPES — LAGOISI, THE MASAI — THE RUSIA ARE AFRAID OF US — A MORNING’S SPORT — NATIVES IN THEIR WAR- PAINT — ON LAKE RUDOLF — REJOICINGS — THE PEOPLE OF RUSIA — AN AMUSING CEREMONY — I START ON A JOURNEY TO THE NORTH — ELCUME VILLAGES — AMONG THE MURLE — MURLE WOMEN BADLY DISFIGURED — I GET AN ATTACK OF FEVER, AND AM CARRIED BACK TO RUSIA	289
--	-----

CHAPTER XXIV.

A SECOND ATTEMPT TO JOURNEY TO THE NORTH — WE ARE CAU- TIONED AGAINST MEETING HOSTILE TRIBES — LARGE MURLE VIL- LAGES — WANDOROBBO — A SMALL LAKE — THREATENED ATTACK BY THE KÈRE — RED TAPE — HANDSOME NATIVES OF KÈRE — NETTING CATFISH — BUKI — LARGE TREES — ARRIVAL AT GUMBA — THREE HARD DAYS’ WORK MARCHING THROUGH AN UNINHAB- ITED COUNTRY WITHOUT GUIDES — MARSHES AND BLACK FORESTS, ANNOYING WEEDS AND DENSE JUNGLES	302
---	-----

CHAPTER XXV.

EXPECTING A NIGHT ATTACK — WE FIND OURSELVES AT LAST IN A THICKLY POPULATED AND FERTILE COUNTRY — THE FRIENDLY AND INTERESTING MELA — A HUNDRED MILES NORTH OF LAKE RU- DOLF — COUNTRY TOWARD THE NILE AND TOWARD ABYSSINIA — MOUNT SMITH — THE RIVER NIANAM — A SECOND TRIBUTARY TO THE NIANAM — RETURN JOURNEY TO RUSIA — ASTONISHMENT OF	
--	--

	PAGE
THE GUMBA AND KERE AT SEEING US AGAIN — THEY BEG ME TO PERFORM MIRACLES FOR THEM — BACK AGAIN AT RUSIA — DOD- SON'S REPORT OF HIS JOURNEY IN THE CANVAS BOAT — HYENAS TRAPPED BY DODSON — REFRACTORY DONKEYS — JOURNEY ALONG LAKE RUDOLF — TAME ZEBRAS AND HARTEBEESTS — THE ELMOLO — BIRDS AND FISHES — SHOOTING RHINOCEROSES, HIPPOPOTAMI, AND WATER-BUCK — TELEKI VOLCANO	313

CHAPTER XXVI.

FOUR SPORTING ADVENTURES: NARROW ESCAPE FROM AN ENRAGED ELEPHANT — THE RHINOCEROSES' PROMENADE — CHARGED BY AN ELEPHANT — SHOOTING A JUMBO	334
--	-----

CHAPTER XXVII.

WE LEAVE LAKE RUDOLF TO EXPLORE THE UNKNOWN COUNTRY TO THE EAST — A RISKY UNDERTAKING — MUCH SUFFERING FROM THIRST — CHARGING RHINOCEROSES WOUND ONE OF MY BOYS AND KILL A CAMEL — MT. KULOI, AND ITS DESOLATE SURROUNDINGS — WE FIND WATER JUST IN TIME TO SAVE US FROM A MISERABLE DEATH — A LONG MARCH TO THE RENDILE — THE RENDILE — BUYING FRESH CAMELS — MARSABIT — A BEAUTIFUL CRATER- LAKE — "TREED" BY AN ELEPHANT — JOURNEY TO LASAMIS — SHOOTING GIRAFFES — AN AMUSING REQUEST FROM MY RENDILE GUIDE — WE REACH THE GUASO NYIRO — YUSIF SEIZED BY A CROCODILE — I AM OBLIGED TO AMPUTATE HIS ARM — OUR LAST PLUNGE INTO THE UNKNOWN — THREE BULLYING RHINOCEROSES — CAMEL KILLED	346
---	-----

CHAPTER XXVIII.

ACROSS A BARREN COUNTRY TO THE TANA RIVER — ON THE EQUATOR — AT LAST WE REACH THE TANA — OUR JOY AT MEETING THE REV. ROBERT ORMEROD — A GREAT CHANGE FOR US — A DELIGHTFUL JOURNEY HOMeward — THREE HUNDRED MILES IN CANOES — WITU AND MKANUMBI — CAPT. A. L. ROJERS — LAMU — THE LAST OF OUR AFRICAN HOME — AN EIGHT DAYS' SAIL TO ADEN — MY BOYS AND I PART	362
CONCLUSION	368

APPENDICES.

	PAGE
A. FISHES	377
B. ARANEÆ	386
C. SOLIFUGÆ, SCORPIONES, CHILOPODA, AND DIPLOPODA	392
D. LEPIDOPTERA HETEROCERA	408
E. GEOLOGICAL COLLECTION	423
F. FOSSIL CEPHALOPODA	426
G. ETHNOGRAPHICAL OBJECTS	430
H. WORDS SPOKEN BY THE KONSO, DUME, AND ARBORE TRIBES	444
I. COLEOPTERA	447
J. EMPEROR MENELEK'S LETTER (FRENCH TRANSLATION)	455
<hr/>	
INDEX	457

LIST OF ILLUSTRATIONS.

	PAGE
✓ A. Donaldson Smith (photogravure)	<i>Frontispiece</i>
✓ Elephant killed by the Author in 1893	3
✓ Three of the Author's Escort, with Ostrich which had been captured and plucked by Midgans	13
✓ Lion killed by the Author	21
✓ <i>Heterocephalus glaber</i>	23
✓ The Erer	33
✓ Lion shot by F. Gillett	35
✓ Group of Arusa Gallas	47
✓ The Tomb of Sheikh Husein	53
✓ Women of Sheikh Husein	55
✓ Objects collected at Sheikh Husein	57-61
✓ <i>Lophiomys smithii</i>	64
✓ General Wal-da-Gubbra and Abyssinian Attendants	75
✓ Abyssinian Knives and Mule Collar	79
✓ A Natural Temple	85
✓ The Caves of Wyndlawn	89
✓ <i>Turacus donaldsoni</i>	95
✓ Emperor Menelek's Letter (facsimile)	103
✓ In Somaliland again	113
✓ New Larks discovered by the Author — <i>Alaudula somalica</i> (Sharpe)	127
✓ Red and white Durrha	130
✓ Somali Knife, Spearhead, Comb, and Amulet	133
✓ Mr. Fred Gillett	136
✓ Lesser Kudu	141
✓ A Wounded Lioness	147
✓ Dagodi Sling Shot	151
✓ Natives of Buntal, with some of the Author's Escort	154
✓ Crossing the Jub	155
✓ Three of the Author's Boys cutting out Tusks	179
✓ The Gabbra's Outfit	183
✓ The Wells of Le	187
✓ The Fight with the Boran	201
✓ Boran Whip	206
✓ Boran War Feather	207
✓ Boran Bracelets	208
✓ Near Argassa	209

	PAGE
Village of the Amara	217
A Pool of Water in the Tertala Mountains	241
Lake Stephanie from the Northeastern Corner	249
The First Appearance of the Arbore	259
Arbore Necklaces and Bell for Ankle	261
Arbore Pipe	262
Fight with the Arbore	267
Arbore War Hat	269
Dume Warriors	273
Dume Ornaments	275
Bunno Shield, Spear, and Arrows	280
Colobus <i>guereza</i>	287
Rusia Shield	296
Murle Woman	300
Threatened Attack by the Kère	305
Kère Pillow and Bells for Ankles	307
Mela Ornaments	315
Mela Basket	316
Native Bridge	317
One Hundred Miles north of Lake Rudolf	321
Along the Shore of Lake Rudolf	325
Donaldsonia <i>stenopetala</i> and Gillettia <i>sepalosa</i>	329
Near Mount Longendoti	332
Narrow Escape from an Enraged Elephant	337
A Part of the Author's Collection at the University of Pennsylvania, including the Giraffe, "Camelopardalis <i>aethiopicus</i> ," Thomas	357
Spearheads (tail-piece)	374
Clarias <i>smithii</i>	379
Lepidoptera Heterocera	421
Arbore War Horn, Sword, Fishing Gaff, and Staff	440
Burle Wristlet	441

Maps.

- Six Maps Illustrating the Expedition to Lake Rudolf.

THROUGH UNKNOWN AFRICAN COUNTRIES.

CHAPTER I.

INTRODUCTORY.

WHEN I left Philadelphia in the summer of 1893, I was by no means unaccustomed to endure physical labor and hardship. Many a sporting trip in different parts of the world had taught me what to expect under most diverse conditions. The keen love of sport and adventure that is innate in most of the Anglo-Saxon race had always prompted me to go into the remotest corners of the earth, and I suppose it was my seven years' medical training in America and Europe which taught me never to lose a chance of doing scientific work when it presented itself. An exploring expedition offered me an opportunity for gratifying all my desires and ambitions.

My good friend Dr. William Lord Smith, of Massachusetts, with whom I had just been fishing and shooting in Norway, was contemplating a shooting trip in Somaliland; so I joined him, with the idea that this preliminary journey would give me the requisite knowledge of the natives and beasts of burden that I intended taking with me when I made my exploring expedition.

We had splendid sport, killing six lions, besides many elephants, rhinoceroses, and other big game. But what I valued most was that I was enabled to form my plans for

my future expedition through the Galla countries to great advantage.

I perceived that a journey from Berbera to Lake Rudolf would be a difficult and dangerous undertaking. The preliminary details would require the most careful study, and no expense should be spared in preparing for every possible contingency.

Ever since the days of Sir Richard Burton, who first endeavored to explore the Galla countries, to the time of my expedition, attempts had been made from time to time by Europeans to pass through the country lying between Somaliland and Lake Rudolf, without success. From Captain H. G. S. Swayne I received much encouragement. Captain Swayne had made many expeditions in Somaliland, and on his last journey had gotten as far as Ime, on the Shebeli River, and had endeavored to go across into the Galla country. He had an escort of only forty armed men, but the Gallas would not let him enter their country because the only white men who had ever crossed their borders, Prince Ruspoli and Captain Bottego, had attacked them continually. These two Italians had gone far up the Ganana, or river Jub, taking with them large armed forces, and the Gallas had resolved to unite to prevent any other Europeans from coming among them.

The greater part of the country west of the Shebeli River to Lake Rudolf was therefore a *terra incognita* to Europeans, except in a few instances, where very indefinite native reports had been conveyed to residents on the coast, and to the two explorers, M. Borelli and M. D'Abadie, who had endeavored to penetrate the country from the north.

Dr. W. L. Smith and I got a little beyond Milmil on our sporting trip; and on inquiries from Somalis I judged

that, with a well-equipped expedition travelling through the Galla countries, there would be very reasonable hopes of success, especially if patience were exercised, and everything done to conciliate the natives. It would be necessary to provide against little acts of treachery by taking a



ELEPHANT KILLED BY THE AUTHOR IN 1893.

substantial armed escort; but as I hoped to succeed by conciliating the natives, and not by fighting my way, I resolved upon taking only about seventy rifles, — a number altogether inadequate to resist the natives, had they united to attack us.

Returning to the coast on the 1st of February, 1894, I left orders with Mohammed Hindi, a merchant of Berbera, to buy me the best camels he could find. I also engaged many of the Somalis we had had with us in our sporting trip. Mr. Malcome Jones, English Resident at Bulhar, and Mr. Charles McConkey, Agent of Messrs. Brown, Shipley, & Co., at Aden, very kindly offered to aid me in every way, so that when I came back in the summer I should not be obliged to delay long on the coast.

On my return to England I set to work to prepare myself for doing as much work as possible from a geographical and natural-history standpoint. My expedition would be successful from a popular point of view if I could reach Lake Rudolf from the east, and join Count Teleki's line of march which he had made from the south; but I valued the results I might obtain by their accuracy and scientific usefulness. A course of instruction given me by Mr. John Coles, Map Curator of the Royal Geographical Society, taught me the various methods of laying down my positions accurately, and many valuable hints given me by the staff of the British Museum showed me how I should obtain the best results in collecting natural-history specimens. I was determined to spare no expense to make my expedition as complete as possible, so I determined to engage the services of Mr. Edward Dodson, a young English taxidermist, with the idea of his being useful in helping me to collect specimens, as well as in skinning birds.

When my preparations were nearly completed, I agreed to the request of my friend, Mr. Fred Gillett, that he might accompany me, with twelve men and twenty camels, as he wished to shoot big game, and I was desirous of his company. The only material assistance I received was from the Royal Geographical Society in the shape of a loan of valuable instruments. These consisted of a six-inch

theodolite, sextant, and artificial horizon, boiling-point thermometers, aneroids, and prismatic compasses.

Much interest was expressed in London in my expedition, and my friends endeavored to give me their encouragement in every way; but at the same time it was the universal opinion, both in London and Aden, that it would be impossible to enter the Galla countries, let alone to reach Lake Rudolf, with less than two or three hundred well-drilled followers. The expression of such opinions served, however, only to increase the zeal I felt in the enterprise.

CHAPTER II.

ARRIVAL AT ADEN — HAJI HASSAN — HIS DISCREET CHARACTER — MAKING CONTRACTS WITH MY MEN — VOYAGE TO BERBERA — THE START — DESCRIPTION OF THE SOMALIS — AN ODD MARRIAGE CUSTOM — TRIBAL DIVISIONS — THE HABR-AWAL.

WE set sail from London on the 1st of June, 1894, and in eighteen days were at Aden. Almost the first boat that approached the steamer as she came to anchor contained my good friend Mr. Charles McConkey, and behind him was a grinning face I recognized at once. This peculiar, black, ugly, though amusing countenance, that seemed to be bursting with joy, belonged to a good old follower of mine named Hassan. As he had been to Mecca he was called Haji Hassan. The last time I had seen Haji Hassan was when I was leaving the wharf at Aden upon my departure for London. I could not restrain a smile at that time, for instead of the graceful folds of flowing white cloth the Somalis usually wear, Haji was arrayed in two flannel shirts I had given him, the tails waving one above the other, while below there was nothing to cover his nakedness except a pair of thick boots. His last words had been, "Hofficer must come back soon; I wait for hofficer." He had picked up considerable cockney English in Aden. It was with no slight feeling of pleasure that I saw this curious specimen of humanity once more. I had no regular head man on my previous trip, as I attended to everything in camp myself; but Haji Hassan was so quick in noticing if anything went

wrong, and in reporting this to me, that I gave him the title of head man to please him, and he has been my friend for life ever since. Like all Somalis, he is very fond of collecting every cent and loose rag he can scrape together, but he is very careful not to make his master angry.

One night when we were camped at Milmil, Haji came to my tent and tried to wake me; he did so, however, in such a gentle fashion that I did not think that anything could be the matter, and went to sleep again. An hour later I heard Hassan's voice in my tent once more. "Hother boy he kill him one."—"What do you mean, Haji?" I said, as I heard the word "kill." "Yes, sahib, he kill him one." And as I rose, Haji opened the tent, and showed me one of my boys lying apparently lifeless upon the ground. The poor fellow had lain there for an hour insensible in the cold, without a stitch of clothing on him, and neither Hassan nor any of the other boys had thought the affair of sufficient importance to disturb me, or to attend themselves to their fellow-countryman. My boy had been knocked down by a native as he was fetching water from a well, and was severely injured.

I engaged Hassan as soon as he jumped on the steamer, telling him his work would be confined to looking after the boxes of natural-history specimens, and assisting Dodson. We were scarcely landed before many of my old boys were about me, with hosts of other friends, clamoring for positions.

We spent ten days hard at work at Aden, engaging men, buying cloth, brass wire, and beads for trading purposes. Provisions for the Europeans of the party, and the fancy articles for trading, ammunition, and all the rest of the *impedimenta*, I had shipped ahead from London. I had an agreement drawn up binding my men, in as strong a

manner as I was able, to go with me where I wished and to obey my commands,—I agreeing to pay for one month's wages in advance, and no further sum until the return of the expedition to the coast (except in certain cases where the men had families, and I arranged to pay these a small sum monthly). In case of a man's death, his heirs were to receive the money due up to the time of his death, but no more; and any deserter would lose all claim to wages. Lieutenant-Colonel Sealy, Political Agent for the Somali Coast at Aden, kindly had the agreements properly witnessed, and it was impressed upon the men that any case of desertion would be severely dealt with.

I bought two strong mules, as well as two ponies, Mr. Fred Gillett also securing a pony and mule for himself; and when we left Aden, on the 29th of June, we nearly filled the miserable little steamer that was to convey us to Berbera. Besides our fifty-five Somalis, our ponies, mules, and boxes, there were some fifty other natives with their loads of cloth, who were going back to Somaliland. I was afraid the vessel would be swamped in crossing the Gulf of Aden. It did not go directly to Berbera, but stopped first at Zeila, an old town that used to be in the possession of the Turks, and afterwards made a second stop at Bulhar; but at neither of these places could the vessel land, and we were obliged to go ashore in a chair carried on the backs of the natives through the breakers.

On the 1st of July we arrived at Berbera, all of us feeling in a most depressed state from the unspeakable voyage we had had,—my poor Somali boys having been pent up like so many sheep for nearly three days.

I was disappointed that more camels had not been procured for me; but I found that there had been such a severe drought that caravans came rarely to Berbera, as they could procure no food for their camels. About seventy camels

were ready for me, and these were in a half-starved condition, and were getting poorer every day they remained near the coast. It was intensely hot; the thermometer in the day-time registered 110° in the shade, while at night it would range from 95° to 100° Fahr. Great wind storms were raging at the same time, and the blasts of hot air, carrying with them clouds of dust and sand, seemed to emanate from a fiery furnace. All the same we were obliged to stop ten days, as we had much work to do here, buying supplies of dates and rice and ghee for my men, and dividing up the camel loads. I determined to take with me one hundred and fifty days' supply of food for my boys, in addition to my enormous stock of trading goods. The regular daily rations I allowed my boys were one pound of rice, one half-pound of dates, and two ounces of ghee, or clarified butter, per man. Forty-three camels were required to carry the native food. There were in all one hundred boxes containing copper vessels full of spirit for collecting reptiles, fishes, and batrachia; cases for collecting birds, insects, etc.; instruments, cartridges, a collapsible Berthon boat, and countless other things. It was hard work dividing up the loads and getting every man accustomed to the various positions to which he was appointed, although Capt. L. Z. Cox—Acting Resident at Berbera—and Mrs. Cox did what they could to make our stay as agreeable as possible. I engaged twenty-seven other men at Berbera, making a total number of eighty-two followers, including Gillett's escort of twelve riflemen.

On the 10th of July we resolved to make a start, although we did not have nearly the requisite number of camels, and the number that I already had were gradually becoming weaker and weaker from the lack of proper food. I had managed to buy only eighty-four camels up to the time of starting, including the twenty that belonged to my

friend, so that many of the animals were obliged to carry burdens weighing from two hundred and fifty to four hundred pounds, whereas they should not have averaged two hundred pounds, considering there was such a long journey ahead of us. I depended upon securing camels as I went inland to replace the number that were sure to become exhausted, and to continue buying until the total number amounted to one hundred and ten strong animals.

To have made a long march across the broad maritime plain by day, with the pitiless, scorching rays of the sun beating down upon the over-burdened camels, would have been disastrous ; so I arranged to start in the afternoon, and march throughout the night, forcing the camels ahead until we had gotten well up the first mountain ranges, and into a country where they could get a little food and a more refreshing climate.

Somaliland may be roughly divided into three parts as regards elevation and climate. First the maritime plain, the evils of which it would be impossible to exaggerate ; then a broad plateau extending inland some thirty miles, at an elevation of 3,500 feet, where the atmosphere is dry and not uncomfortably hot ; and after this the highlands, or second plateau, embracing all the central part of Somaliland, where the aneroid will register from 4,000 to 6,000 feet above the sea level.

Our object was, therefore, to reach the first plateau before the morning sun's rays should strike us too heavily. By four o'clock in the afternoon the last camel load was adjusted, and off the caravan started.

In six hours we had reached the bottom of the first ascent. The boys, as well as the camels, were in a ridiculous state of exhaustion, being enervated by the long stay on the coast. Four of them were too sick to walk. The three Europeans, however, had an easy time of it, can-

tering up and down the length of the caravan upon strong, spirited ponies. How often we thought of those ponies months afterwards, and of our gallops along clear stretches of road in friendly Somaliland.

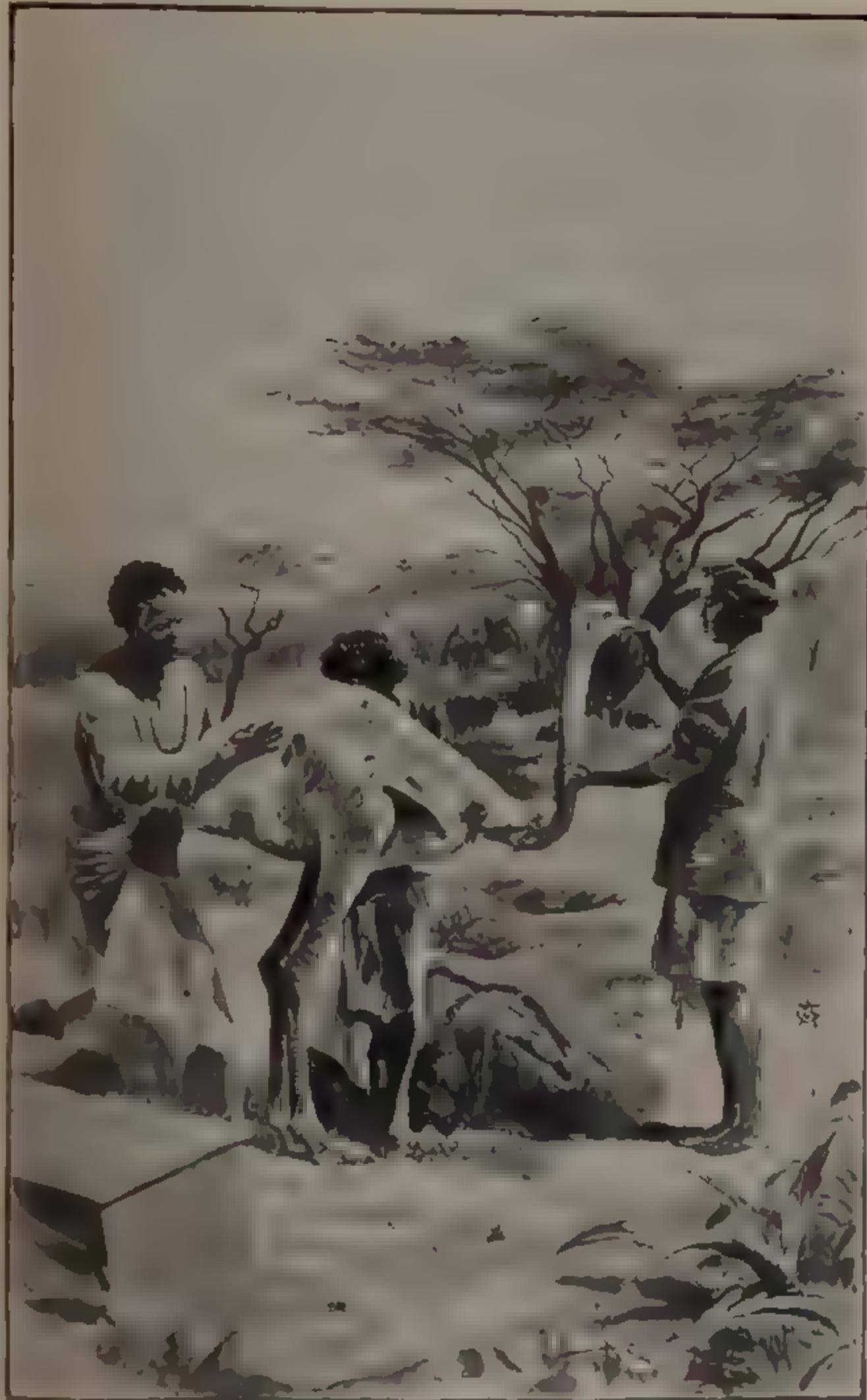
Early in the morning we ascended to Dere-godle, a spot on the first plateau where there are some water-holes. The country was absolutely barren, hilly, and uninhabited,—nothing but stones and rocks to be seen on all sides; and, excepting the numerous foxes and hyenas and a few bottle-nosed gazelles, there were no signs of life about. Here one fellow sent for me in great haste, saying he had been bitten by some venomous snake on his toe. I found the man groaning, and acting as if he were in his last agonies, but there was not the slightest inflammation in his toe. He had merely been pricked by a thorn; so I gave him a good punching to get him on his feet, and proved to him that he was all right. This is a characteristic of the race,—to make much of small injuries. The Somalis are of a comparatively recent origin. They are a mixture of the negro and Arab: light in color, with wavy or curly hair and intelligent, bright features, slight and graceful in stature, but with poor muscular development. They are unaccustomed to work of any kind, but they are unexcelled as camel-men, causing one to gaze with astonishment at the rapidity and dexterity with which they fasten the most difficult loads imaginable to the camels. They will work amazingly well in spurts, when their enthusiasm is aroused, but they are not steady at manual labor of any kind. They are described by Gobat as “constant in nothing but inconstancy; soft, merry, affectionate souls, they pass, without any apparent transition, into a state of fury, when they are capable of terrible atrocities.” To this statement I make one exception: I would never apply the term ferocious to a Somali. In all my experi-

ence with them, I found that when two of them fight with each other they will throw away rifles or spears, or any other weapon, before getting to close quarters, so that little damage can be done to either of them. They are very careful to be on the safe side; although, when they must fight, they are steady, and show considerable moral courage.

The Somalis are not the noble warriors in their native land that reports have made them out, for in their constant fights against their neighbors the attacking party invariably see to it that they have the greatest odds in their favor. A fight in which hundreds of men may take part rarely terminates in more than four or five deaths. The men attend to the camels and flocks of sheep and goats, but they let the women do all the hard part of the work in their villages. The women are regarded merely as goods and chattels. In a conversation with one of my boys he told me that he only owned five camels, but that he had a sister from whom he expected to get much money when he sold her in marriage. The women are very carefully guarded; in consequence of which they have no sense of morality of their own, taking every opportunity in their power to flirt.

Sir Richard Burton says, "As a general rule, Somali women prefer amorettes with strangers, following the well-known Arab proverb, 'The newcomer filleth the eye.' "

The first thing the native bridegroom does on marrying her is to give the Somali maiden a thoroughly good thrashing, so that she may never be "cheeky," as one of my boys put it. The Somali women can scarcely be called handsome, except for their large, expressive brown eyes, and their beautiful white teeth, which, like all natives of Africa, they are continually scrubbing. Their tooth-brush is made of a twig of a tree called the Athei, which they



THREE OF THE AUTHOR'S ESCORT, WITH OSTRICH WHICH HAD BEEN CAPTURED
AND PLUCKED BY MIDGANS.

keep constantly by them. The Somalis have many songs, most of which are based on love themes, and many of them have great ability in extemporizing as they sing, keeping always to the same melodious chant, about a bar or two in length, which they constantly repeat. In some of their songs there is a leader, who is followed by a chorus.

They keep themselves usually well clothed in long garments of white American sheeting ; but at the wells you will see both sexes bathing together, with little regard for decency.

In no sense of the word are they hardy, being very susceptible to fevers and rheumatism ; but they are wonderfully good in marching : they seem to think nothing of marching thirty-five to forty miles to the day. Though they are able to go without drink or food for long periods, they are a most voracious people when food is put before them ; three men will easily eat up an entire sheep during a night.

I will not go into a lengthy description of the Somalis, as there has been so much written on this subject already. They claim their descent from Ali Bindale, cousin of the Prophet. The three great divisions of the Somalis are the Habr-Awal, Habr-Girhagis, and Habr-Toljala, which are descended from Husein, eldest son of Ali Bindale ; and after them come the Dolbahanta, and many other tribes, who are descended from Hassan, the second son of the same man. Three tribes exist among the Somalis called the Midgans, Tomals, and Yebirs, who are regarded as low-caste people.

The Midgans use bows and poisoned arrows, hunt and act as butchers for their rulers, and are employed by different chiefs to aid them in fights against their neighbours. They are very cunning and treacherous, and are

never permitted to intermarry with the Somalis of better blood.

The Tomals, or blacksmiths, are also regarded as low-caste, and believed by many of the Somalis to be gifted with magical powers. They go from village to village, being regularly paid by the Somalis for the work they do. The Yebirs are like the Tomals, excepting that they work in leather.

As we progressed in our journey south we passed two water-holes lying in a "tug," or sandy bed of a stream,¹ the waters flowing freely for a hundred yards or so on the surface, and then disappearing again, leaving a delicious fringe of green grass about. There were also a few cocoanut-trees about the tug, that relieved the oppressive monotony of the otherwise dry and desolate country; but most of the trees and bushes scattered around looked dead and only half flourishing.

Some half-dozen of the camels I had started with were left behind before the second march, as they were too exhausted to endure the journey; we passed, however, several native caravans, from each of which I managed to buy three or four camels, the usual price being forty-two rupees each; and when we came to Lafarug, I bought eleven fresh, fine camels, besides many goats and sheep. Here four camels were stolen by Midgans. The boys whom I sent to capture them succeeded late in the night in finding the camels, and in catching one of the thieves.

The camels made poor time, having to cross great cuts and furrows in the stony ground; but the country became much more fertile, and to our great joy we began to have showers of rain.

¹ The sandy beds of streams or wadies are called by the Somalis "tugs," a name which I shall in the future use to designate them.

It was my plan in Africa to drink only boiled water, and I had two water-barrels especially made in London to contain the boiled water for the three Europeans. One of my mules now caused us much uneasiness by trying to break these two barrels; but although he succeeded in kicking them off, they were fortunately not injured.

There were a few gazelle and *Oryx beisa* about, but we did not shoot them, as the country called Habr-Awal, which extends from Berbera south to Hargesa, a distance of ninety-five miles by road, is reserved for the Indian garrison at Aden. We lived very well, however, on lesser bustards, and a variety of other game-birds, which Gillett and I shot; and I succeeded in adding many natural-history specimens to my collection, including a curious lizard with a very short tail which spread out like a fan (*Agama batillifera*).

CHAPTER III.

ARRIVAL AT HARGESA — CRUELTY TO PONIES — ACROSS THE DESERT TO MILMIL — THE OGADEN SOMALIS — LION-SHOOTING — A CURIOUS HAIRLESS MOLE — AT SESSABANE — RAIDS OF THE ABYSSINIANS — TREES AND FRUIT — BEAUTIFUL BIRDS — CRUEL TREATMENT OF OLD WOMEN — DRILLING THE BOYS — WE LEAVE LAFKEI — AN ANNOYING PLANT — MEETING WITH CAPT. C. J. PERCIVAL — UNKNOWN COUNTRY AHEAD.

ON the 17th of July we arrived at Hargesa, — a large, important settlement of Somalis, governed by a very intelligent and friendly old chief. The caravans going to and fro from Berbera to this point are provided with an armed escort by the English Government.

Beyond Hargesa is a tract of country called the "Haud," extending south to Milmil one hundred miles, in which there is not a drop of water to be found, except in the rainy season. During the spring and fall rains this country affords fine grazing, and the Somalis from the north and south send their flocks in thousands to the Haud for pasture. It is then a scene of many battles between the Habr-Awal and other tribes from the north, and the Ogaden Somalis on the south. But during the dry season it is only a resort of lions, and great herds of antelopes and other wild beasts.

On our arrival at Hargesa the old chief treated us to a tamasho, or equestrian exhibition. About a dozen Somalis, mounted on gayly caparisoned ponies, dashed up and down before us, throwing their spears, and giving many imitations of their accustomed mode of fighting. It was a

cruel show, as they use hard ring-bits for their ponies that cause the blood to stream from their mouths. The Somalis seem to be utterly careless of the ponies' suffering, riding them frequently when their backs are a mass of sores.

We spent four days at Hargesa to rest our camels and buy fresh ones, and I discharged here two of my boys for bad conduct, replacing them by two strapping fellows provided by the chief of Hargesa. One of these, named Goolaeed Farrah, was reported as a great fortune-teller, and indeed it was marvellous how accurate his predictions were. He said that a certain boy in the camp named Dualla Farrah would not be with us very long, but that he would be the first one to meet with a violent death; and it turned out this boy was drowned in the first river we crossed. Not far from here I shot a fine specimen of a wild dog.

Fred went to the Haud for a three days' shooting trip, and came back with his camels loaded with game, after which we filled our water-barrels and started on our five days' march across the desert. At first the path ascends rapidly from Hargesa to the height of 5,500 feet, and then passes straight across the almost level Haud until it nearly reaches the Tug Milmil.

We were obliged to make long marches of nine hours daily, accomplishing in this time about twenty-four statute miles by road. Soon after leaving Hargesa we crossed an open, grassy plain, seven miles wide, called the "Bunn Seila," and extending about forty miles east and west, according to native report. But with this exception the Haud is covered with thorny acacias, and with mimosa bushes and trees. Occasionally, when a distant view is afforded on the Haud, it seems to you that you are approaching a range of hills; but as you progress you find

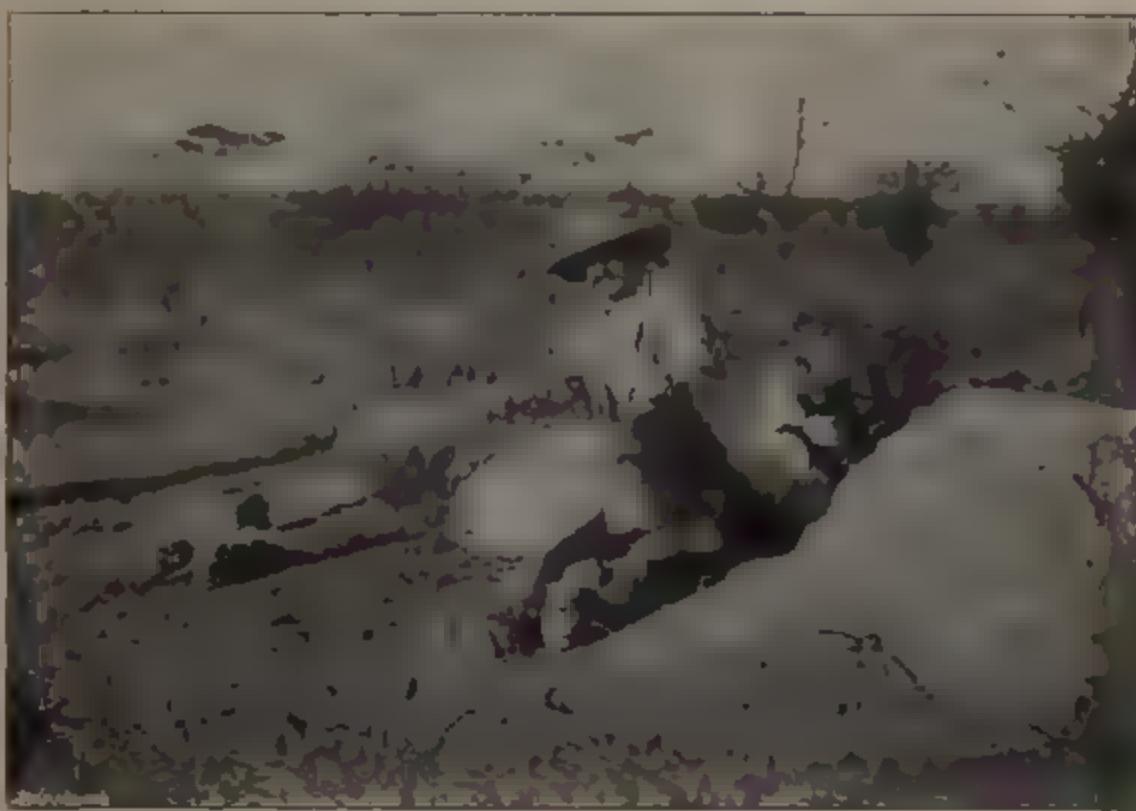
that these are only optical illusions, quite characteristic of flat countries in Africa. It was very pleasant travelling across the plateau, as the climate was dry and cool, the average temperature for twenty-four hours being 73° Fahr. On the 27th of July we found ourselves at Gagaap, on the Tug Milmil. We were now in the Ogaden country, the land of fat camels and good-looking men and women, the people having lighter complexions and more refined features than in other parts of Somaliland. The camels were formerly raised in large droves, but within the last three or four years their numbers have been greatly diminished by raiding parties of Abyssinians.

Most of the men understand Arabic; and you scarcely ever see a boy without his little flat board, on which are written verses from the Koran.

The natives flocked to us from the many villages about two miles distant, and treated us to another tamasho. Trading went on briskly; and I managed to secure, in the few days we were at Milmil, many fresh camels, so that the caravan included over a hundred good strong animals. Not far from here I was fortunate in shooting the best specimen of male lion that I have seen in Somaliland. The natives sent a delegation to beg me to come to one of their villages to shoot a lion which they said had eaten many of their people, and which was accustomed to jump into their zareba every few nights. I hastened to the place immediately, and had my boys build a small zareba, or bushy enclosure, just big enough for myself and another man; and in this pen I made myself as comfortable as possible, with one of my boys beside me to watch. Just before sundown a few hyenas came out and seemed as if they wanted to attack a donkey I had tethered in front as a bait. I had to keep throwing stones every now and then to frighten away these pests; but just as it got dark a

great stampede took place on the part of the hyenas, and they could be seen fleeing in all directions.

I waited breathlessly, as I thought they must have been frightened by the lion. Although I gazed intently to see if I could make out the form of the great beast, nothing could be seen for some moments. Suddenly there was a mighty thud, and down went my donkey, all of a heap, to the ground. I raised my rifle, and just as the dust cleared away, I perceived the huge form of a lion stretched



over the body of the prostrate donkey. He was only ten feet away from me, so I took aim as nearly as possible at the centre of his shoulder. There was a loud report from my eight-bore express, followed by such a terrific roar as only a lion in his native haunts will emit.

I have heard it said that outside of menageries the lion's roar is not so thrilling as one might suppose, but this is not the case. I have never in my life heard anything more magnificent or awe-inspiring than the roar of a maddened lion. It makes every fibre in your body tingle, especially

when you hear it at such close quarters as I was at this time. The beast made one mighty bound for the zareba, evidently maddened by pain. He apparently did not know that we were inside, as he did not try to break through the enclosure; but as his body touched it, the fore part of the zareba collapsed. He lay for some moments against the outside, roaring, and you can imagine my feelings, as I dared scarcely breathe for fear he should find us out. At last he picked himself up, and walked a little way to some bushes. The roars continued for at least ten minutes, and then the sounds gradually died away in low moans. I waited some time, until I heard the barking of a fox, and knew my beast was dead, and that I must save him from being eaten by the foxes; whereupon I crawled out with my gun-bearer, and built a large fire.

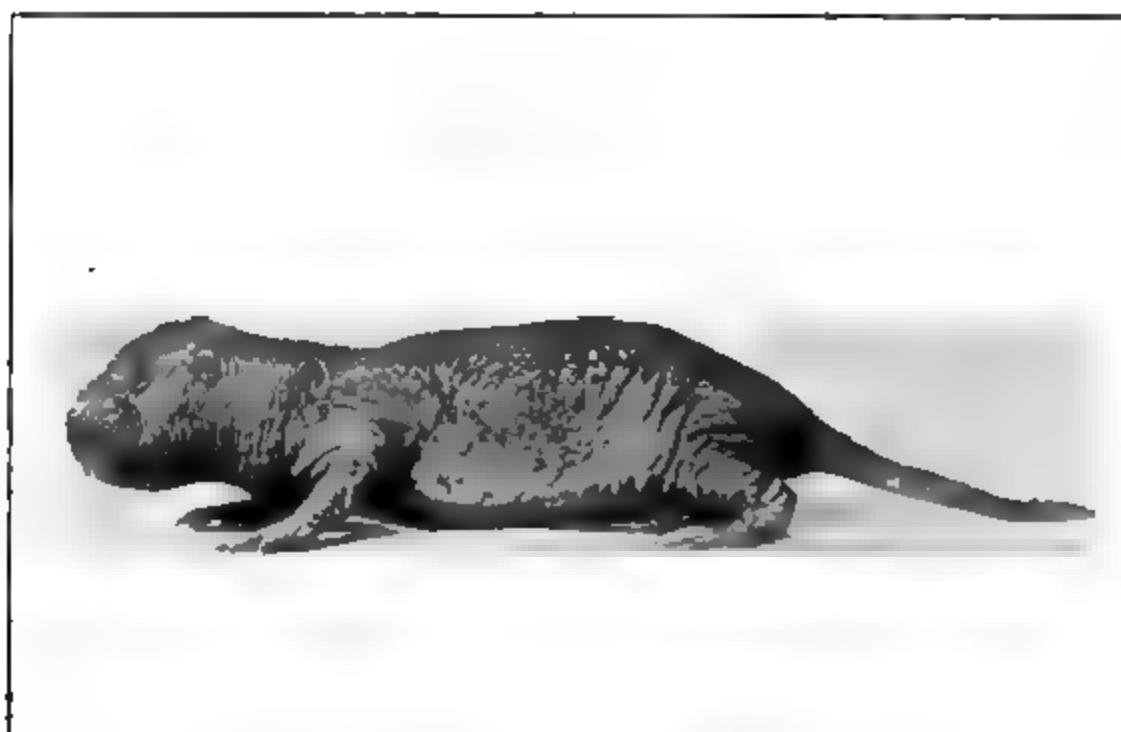
During the night I kept continually firing to frighten away the hyenas, killing one that approached too near, and at the first break of dawn I walked over to where the lion had last been heard. Sure enough, there was the great man-eater stretched at full length on the grass, dead. He had a fine black mane, which is a rare thing for lions in Northeastern Africa to possess, and measured, from tip to tip, nine feet eight inches, before he was skinned. There was great rejoicing in the villages, and crowds of natives stooped over him, clapping their hands and dancing to show the relief they felt at being rid of him.

After leaving Milmil, it was my desire to keep as nearly west as possible; but I was obliged to go a little south at first, to Sessabane, to avoid natural obstacles.

I managed to catch, in this country, one of the extraordinary hairless moles, named *Heterocephalus*, which are distributed throughout Somaliland wherever there are long stretches of soft, loamy soil. Their runs are a foot underground, and at frequent intervals they make holes to the

exterior, through which you may see the earth being kicked out in little jets, that cause one to look on in astonishment, if one does not know the origin of these little volcanoes.

When we reached Sessabane, on the 1st of August, I was astonished to find there great herds of fine cattle. I had never seen half so many cattle together before in Somaliland. The natives were most civil, and anxious to trade with me. You can imagine my chagrin when I heard, a few days afterward, that they had been raided by



HETEROCEPHALUS GLABER.

the Abyssinians, under Ras MacKonnen, their cattle driven off, the young girls taken as slaves, and the older people killed and mutilated.

There is much water about Sessabane in pools, and a luxurious vegetation. You find many superb sycamore or "durre" trees, as they are called by the Somalis, which bear a fruit resembling figs, but lacking in flavor. The "durre" trees are found pretty much all over Somaliland, in valleys where there is water. There is also a "gub." or "jujube" tree, which bears a fruit the size of a cherry,

having rather a pleasant flavor, but which is unsatisfactory to eat on account of the large stone it contains. There is no fruit in Somaliland, properly speaking, though there are many mere apologies for berries, which are eaten by the natives.

Up to the present time, with Dodson's assistance, I had collected about seventy different species of birds, many of them of most beautiful plumage. It was my purpose not only to collect specimens which might be new to science, but to get a complete series of all the birds in the different countries through which I passed, and I endeavored to do the same in all the other branches of natural history. There were many beautiful specimens of doves, some of them very tiny, and also starlings with yellow breasts, and beautiful metallic blue backs and wings. Already at Hargesa I had succeeded in shooting a night jhar, that proved to be new to science, and from that time scarcely a week passed without my having secured two or three new birds.

From Sessabane I was obliged to describe a great curve, going at first south, and then far up north again to Lafkei. There was one tract of country to cross where water was not obtainable for three long marches.

It was a hilly, stony country, covered with mimosa brush and a sprinkling of larger mimosa-trees. The Somalis call this tract of country Sibbe; another name they give it is Habr-i-erde, which means "bad for old women." This name impressed me very much, as I had too often seen the sad state in which old women roamed throughout Somaliland. The Somalis are the best savages in Africa, but they have their little ways; and one is not to trouble about a woman after she gets old, whether she be mother or sister. So many of the poor old wretches are doomed to wander about,

picking berries, or begging, until they die of gradual starvation, or are caught by lions or hyenas. Almost continually there would be some of these old women following along the caravan, doing what work they could, bringing wood or water, for the sake of a few bones our boys would throw them. These were not the only females that accompanied the caravan. Frequently younger and better-looking girls would ask me to allow them the protection of the caravan, in order to travel from village to village, and usually they contrived to make themselves useful in doing various little errands for the men.

The march into Lafkei was one of twenty-five miles. This was the last settlement of Somalis we expected to find as we journeyed west, so I determined to remain here a few days to buy all the animals possible. I previously had been paying for animals in coin, having taken along several thousand rupees for that purpose; but at Lafkei the natives did not know the value of money, and insisted upon being paid in cloth. One of the natives was caught in the act of stealing some of my sheep; and, as I had been much annoyed by repeated thefts, I ordered the man to be given a good flogging.

I had been making several stops up to this time, not only to rest the camels and to trade, but to get the camp better organized and to rate my chronometers. I divided up the men into companies of ten each, appointing a head man in each company. There were, besides these ten head men, my first head man, Haji Idris, and two second head men, splendid fellows, both of them, named Salan Mohammed and Ahamed Aden. The majority of the boys had never been on an expedition before, and knew nothing of the use of the rifle, so I had to be drilling them continually. The Somalis were very fond of being drilled, and it was not long before they learned to obey quickly the

various orders given. In case of an alarm, each company knew the position it was to take at once, and also where to find the boxes of ammunition assigned to it. In ordinary cases there would be eight sentries on duty all night, one to each company. But in dangerous countries the number of sentries would be doubled. The fifteen Winchester rifles were given to the most intelligent of the men, while the remainder of the boys were supplied with Snyders, which they were obliged to carry continually. I also supplied them with thirty rounds of ammunition apiece for their belts.

Each European was usually accompanied by four boys, Fred's boys escorting him when shooting, while the boys I gave Dodson, and reserved for myself, I trained to assist in the work of collecting natural-history specimens. They soon became very keen in their quest for insects and butterflies and anything they thought might be of interest to me. Our two cooks, Mireh and Abdulla, had been ^{with} Dr. W. L. Smith and myself upon our shooting trip, and it was wonderful what good meals they could provide from scanty resources. Often we would fare very badly on account of a lack of firewood, or being obliged to march all day; but usually they contrived to give us some soup and game-birds that we had shot, and excellent bread. They managed to bake the bread between two sheets of tin, which they rested on stones over the fire, using Eno's Fruit Salts to raise the bread. Abdulla, whose proper name is Aden Arralla, had been a cook on a man-of-war. He was one of the most faithful followers of my expedition, and exerted an excellent influence in camp.

Two expeditions, that of Captain Swayne, and the one led by Counts Hojes and Cudenhove, had passed south from Lafkei, on their way to the Shebeli River, above Ime; but towards the west nothing was known of the country,

and I had to trust entirely to native guides. As usual, I could not travel in a straight line, the guides informing me that it would be impossible to get water if I did so; so I had to march down the Tug Sillul, on which Lafkei is situated, some distance, and then travel northwest once more. In many places there was absolutely no path, and the guides led us through a very densely wooded country. The underbrush was thick; and often there would be long stretches of ground covered with aloes, and also a cruel plant known in Mexico and Texas as the "Spanish bayonet." It resembles the aloe closely, but the leaves are narrower, and the tips are armed with strong, sharp needles which make it difficult to wind in and out among them without getting injured. They are constantly piercing the animals, inflicting severe wounds. The Somalis call this plant "hig;" the Arabic name is "salab." Both these and the aloes are distributed all over Somaliland.

There was also a tree called the "kedi," which is simply a mass of spikes, and a species of acacia called "hura," bearing a reddish pod about the size of a pea, of which the Somalis are very fond; but the only satisfaction one has in eating them is to get a slight sweet flavor out of a pound of pod. It rained almost every day for a short time, and the sky was almost continually overcast. This made marching pleasanter, but it was very difficult for me to rate my chronometers. Ever since leaving Hargesa I had not been able to get a meridian altitude of the sun, owing to the clouds, and it was only occasionally that I could take stellar observations.

On the 10th of August we had a troublesome march, having to cross several tugs with steep banks, and finally to ascend a very rough path made by game, over a range of hills.

The next day we were to have the pleasure of seeing a

European once more. Capt. C. J. Percival, R. A., crossed our line of march on his way north. He was the only white man, except ourselves, who had penetrated so far into this country. He told me, when I saw him afterwards in Aden, that after he had left us in the jungle, he had been called to a village to attend to one or two natives who had been wounded by a lion. This lion had been the pest of the natives for some weeks, and they had resolved to end his life. Having gathered together in force to wait for him, they attacked him from all sides as he leaped into their village, armed, as usual, only with their spears. In the fight one of them had been killed, and two others badly cut up, but the plucky natives had killed their animal.

We now made a double march, stopping at midday on the Tug Lummo, where there is excellent water all the year round in pools. I was at the mercy of the most ignorant guides, who did not seem to know their way at all. They had led us over the worst country imaginable, where we had to chop, dig, and roll stones aside at frequent intervals.

CHAPTER IV.

TURFA TUG—SHOOTING RHINOCEROSES—A SIDE-TRIP TO THE RIVER ERER—NARROW ESCAPE FROM A RHINOCEROS—WE ARE OBLIGED TO LIFT THE CAMELS OVER ROCKS—A BEAUTIFUL VALLEY—IMPOSSIBLE TO CROSS THE ERER WITH CAMELS—RETURN TO THE CARAVAN—MR. FRED GILLETT'S LION AND LEOPARD HUNT—WE MARCH SOUTH TO THE SHEBELI RIVER—THE RIVER FLOODED—DHUM PALMS—GREAT DIFFICULTY IN CROSSING THE WEBI SHEBELI—MULE CAUGHT BY A CROCODILE—MAN DROWNED—A MULE AND TWO PONIES LOST—FIRST FOOTSTEPS IN THE COUNTRY OF THE ARUSA GALLAS—WE CAPTURE TWO NATIVES—NEWS OF A TOWN BUILT OF STONE—I DISCOVER A SMALL RIVER—THE GALLAS ARE FRIENDLY.

ON the 14th of August we arrived at Bodele on Tug Turfa, where there was abundance of water, and where I was surprised to find a few Somalis. These natives said it would be impossible to take the caravan west, that the country was very mountainous, and that a river which I judged must be the Erer, which flows past Harar and empties into the Shebeli River, made its way through a deep gorge in this mountain; and they also said that a man empty-handed could not reach the waters of this stream, owing to the precipitous walls on either side. As it was wise to give the camels a good rest, I resolved to make the trip with Dodson and a few boys to the Erer, to see myself whether it would be possible to take the caravan across.

Leaving Gillett in charge of the caravan at Bodele, I started on the morning of August 15 for the Erer River, with Dodson and twenty boys. I took along only five

camels, as I was afraid of their being injured. We wound our way for nine and a half miles northwest, through thick thorn-bushes, along paths made by rhinoceroses, and reached a broad, grassy plateau called Gardubbela, where we camped for the night. Starting before daybreak the next morning, we made a long march west across this grassy plain, passing large herds of oryx, zebra, and many ostriches in groups of twos or threes.

I was far ahead of the caravan with my gun-bearer Hersi, and had just shot a zebra, when I noticed a rhinoceros coming straight for me. I turned to Hersi for my cartridge-bag, only to see the man's face fall as he remembered he had given the cartridges to another boy to carry for a short time, and had forgotten to get them again. The rifle I had with me was a .577 express, and I had only a single cartridge for this. I had two hundred yards the start of the rhinoceros, and now ran for the caravan as fast as my legs could take me; fortunately, just as I reached the camels, the rhinoceros stopped a few moments. The boy who had my cartridge-bag ran forward to meet me, and I grabbed the cartridge with not a second to spare, for the rhinoceros now started ahead once more. When he was about twenty yards from the camels, he swerved aside, as his attention was drawn off by some of Dodson's boys, who were not with the caravan. This afforded me a good side-shot, and as the first report rang out, down went the huge beast on his knees. He never got up, as the second shot rolled him over on his side.

The third morning found us travelling by the side of a tug running southwest, hoping that this would lead us to a point where we might cross the river. The country swarmed with rhinoceroses, one of which came very near giving me a good mauling. I was going along a path

made by the beasts, with my little caravan behind me, through an open space, when suddenly and without provocation a rhinoceros dashed out of the grass, and charged directly at us. I stepped aside from the path to get a side shot, thinking that the beast would keep to a straight course; but he suddenly turned on me when only five yards away, and charged with lowered head, puffing and snorting as only a rhinoceros can. Luckily I was carrying my eight-bore, and I had just time to give him a shot in the head, when he was within three feet of me, and drop him to his knees. But it was for a second only. The next instant he was on his legs, and at me again. This time he got a second shot in the head that dropped him long enough for me to spring a few feet to one side and run. But the beast jumped up again, and commenced to prance around in a wild, dazed fashion.

My boys ran in all directions, while the camels stampeded, tossing their loads about in confusion. As it turned out, the rhinoceros was blinded by my last shot, and soon came to a dead halt. I loaded my rifle, took a steady aim just behind his shoulder from a distance of about thirty yards, and was fortunate in dropping him stone dead with a bullet through his heart. I found on examination that the first two bullets had struck his head a little too far forward. I had to be on my guard constantly after this, as there was no slight danger of being run down at any moment by these African bullies.

We soon came to a beautiful stream of clear water, which was a great delight to us all, as we had not seen such a thing as a babbling brook in all our previous marches. We followed the stream for two miles; but what a time we had of it! The valley grew narrower, and the great boulders filling it up increased in size. After having to lift the five camels bodily over rocks several times, we were

obliged to camp. In the morning I divided my boys into three parties, which I started off in different directions, leaving the tired camels to look after themselves, as I wished to find how far off the Erer River was, and to explore the country about it. Five boys and myself kept on down the brook, which, to give it a descriptive title, I have named Stony Brook, and, after two miles' hard scrambling over rocks, arrived at the banks of the beautiful, swift-flowing Erer.¹

It would be hard to exaggerate the beauties of the valley through which this river runs. The high, rocky walls on either side of the rapidly flowing stream were covered with countless varieties of flowering plants and vines; while the rugged, barren tops of the mountains, as they towered three thousand feet above the bed of the river, contrasted beautifully with the yellow reeds along the banks of the stream, and the lovely, light-green color of the shrubs. The valley was alive with animal life: countless birds chirped and sang among the trees; while among the rocks armies of conies, monkeys, and squirrels caroused, and made war upon each other.

I was greatly disappointed to find the natives' report true, and that it would be impossible to get the caravan through this country; but I was well repaid for my trip, as I succeeded in collecting a large variety of birds, butterflies, fish, mammals, and beetles, besides locating this important river.

After spending two days by the Erer, we marched back to the caravan, which we reached on the afternoon of the second day. I was delighted to find that Gillett had killed a fine lion, Fred's account of his encounter with the beast running as follows: —

¹ The Erer was eighty feet broad at this point, with a depth of only one to three feet, and a current of four miles an hour.



THE EKER.

"Whilst Dr. Smith was absent, I had a camel tied in a large patch of very thick bush, in which I found the fresh tracks of lions, but it was some days before one acknowledged the bait. In the mean time, however, I was busy following up fresh tracks, but all to no purpose. I got closer than I wanted, though, one night: I was following a wounded zebra, and the tracks led into a dense country so full of small thorn-bushes that it was with the greatest



LION SHOT BY F. GILLETT.

Photograph by F. Gillett.

difficulty my shikari and I pushed our way through it. It had become quite dark, and I was just about to turn back, when I heard a growl in the bushes to my right, not twenty yards distant. It was an impossible place to tackle a lion. 'Shall I carry the rifle for you?' said my boy; but under the circumstances it did not seem at all heavy, and we made the best of our way back to camp without another word.

"At last luck changed; and one morning my boys

rushed into my tent to say the camel had been killed. I was off to the spot as soon as I had had some breakfast; and as the camel had not long been dead, I sent back to the camp for some of the camel-men to come and drive the beast out of the bushes to me. The drive only took a few minutes. I stationed myself in a clearing, sent a boy back to show the beaters which way to come, and then waited; a twig cracked in front of me, then all was still. Shortly afterwards there was a yell from the men, as they caught a glimpse of the yellow skin of the lion amongst the bushes, and the next second he stood before me not thirty yards off. He saw me at once, and turned to charge back through the men, but a lucky shot through the neck ended his days.

“ The real danger of the performance then began : the men were as pleased as I was at the result, and, placing me by the lion, danced round us, waving their rifles in all directions ; and as these were still at full cock, I began to wonder what a bullet at close quarters would feel like. Fortunately, however, there were no mishaps, and a present of some sheep made the camp the cheeriest place in the world.”

There was nothing to do now but to march the caravan south along the Tug Turfa to its junction with the Shebeli River, and then endeavor to cross that stream. The tug made many twists and curves, but our direction was, in the main, south. We found many ammonites and pieces of fossil coral along the bed of the stream. The mountains were principally of the coarsest granite.

I will give Gillett’s description of a leopard drive we enjoyed on this tug :—

“ We had been marching all the afternoon down the dry bed of the tug, and I was some distance ahead of the caravan, when on the opposite bank I saw a leopard listening

to the noise of the approaching caravan. He disappeared almost at once in a thick clump of bushes. Calling to my boys, I ran across to cut him off. We surrounded the clump of bushes just as the first camel came in sight. When Dr. Donaldson Smith came up, he ordered the camp to be pitched, and some camel-men to beat the bushes, while he and I took up positions on the further side of the clump.

"It was so thick that the men would not venture into the bushes to drive the animal out; and as they were unable to move him, they set fire to the bushes. A few minutes after this he came out opposite me, only a few yards off. He saw me at once, and gave a snarl before I could fire, and then darted away to my left, making for a small hedge. As he crossed the open space about forty yards off, I fired a snap-shot at him for luck, and to my surprise found him quite dead about one hundred yards further off."

After the first two marches from Bodele we came to the junction of the Tugs Sillul, Dacheto, Lummo, Bourgha, and Turfa. These tugs are here merged into a flowing stream of water, which continues for about eleven miles as the Bourgha River, until this empties itself into the Webi Shebeli.¹

Camping at this spot, called Bieusora, which means in Somali "junction of waters," I sent men ahead to reconnoitre, the guides I took from Bodele being absolutely useless. I was much afraid of a block in the Bourgha valley, such as I had encountered in trying to reach the Erer River; but my scouts returned in the afternoon with the good news that they had seen the big river, and that we could march there easily.

On the 24th of August, after a morning's march of ten

¹ "Webi" is the Somali name for any river.

miles, we found ourselves on the banks of the Webi Shebeli. But, alas ! to our disappointment, we found the stream flooded. It was over eighty yards wide, deep, and flowing at the rate of over five miles an hour; so I resolved to camp, and explore the shores to find a better crossing, and if possible to secure guides. I had looked in vain as yet for Gallas; the only signs I had seen of them were on my journey to the Erer River. There were a few deserted Galla huts on the banks of that river; but now that I had reached the Shebeli, I could see no trace of human beings ever having been here, although I had expected to find a large Galla population about the river. Mountains containing much iron ore rose precipitously from the narrow valley of the river, the presence of this iron ore causing many errors in my compass bearings. The river is fringed with groves of dhum palms, those well-known trees which furnish both food and drink to so many natives of Africa. The fruit of the dhum palm is about the size of a potato, hard and pithy, and tasting like dried ginger-bread. We had considerable sport fishing, catching one species of fish resembling a mullet, which was very gamy, rising readily to a spoon bait, and which weighed from three to five pounds apiece. To show what a hard time we had crossing the river, I will quote from my diary for a few days :—

“ *August 25.* We have been at work all day at a point a little below our camp, where the river broadens out to a width of a hundred yards, and where it is from two to seven feet deep. My head man, Idris, and Abdi Segard (Fred's gun-bearer) made an attempt to get a rope across from my boat. Abdi rowed, and a hard time he had to get over the swift current, just managing to reach the bushes on the other side, and grab them. Idris pulled in several coils of rope and then made a spring for the shore; but the strain on the

rope was too great for him, and he had to let go the end. This was the first failure. Afterwards we landed several men on the opposite shore, and this time Idris and Abdi managed to row across with a rope, and give them the end, which they made fast to a tree; but we were bound to be disappointed again,—the rope broke.

“The afternoon was now spent in making a raft, and in braiding a rope to triple its original size, so that there would be no danger of its breaking. When returning to camp, I was surprised by hearing a number of shots fired in quick succession at the water’s edge. I could only imagine that the Gallas were attacking us, and rushed hastily to the spot, to find that Fred’s mule had been caught by a crocodile and dragged some distance into the water, before some of my boys had rescued him by their shots. Fred and Dodson came rushing in from different directions, as they too thought the camp had been attacked. One of the mule’s fore-legs was terribly lacerated, and there seemed to be scarcely a hope of saving him. We debated for a long time as to whether we should shoot the mule or not, but Fred finally determined to give the poor beast a chance for life.¹ Owing to this incident, we dubbed the spot ‘Crocodile Camp.’

“*August 26.* The boys spent the day trying to get a rope across, and the new raft floated. They worked like Trojans, but the raft they made with so much patience was a failure. We all feel very blue. The river fell six inches the last twenty-four hours, so that the men could wade almost across the stream in the afternoon. There are many hippopotami about, but we have been unable to get a shot as yet.

“*August 27.* Fred’s mule seems to be recovering from

¹ And glad he was afterwards of his decision, as a more serviceable animal he could not have had.

his wounds. The men worked hard all day, and succeeded by afternoon in building an excellent raft, out of four eight-gallon wooden water-barrels, splicing them to logs. They also got the heavy three-stranded rope across, and made it taut; but, alas! they could not hold their raft at all by the rope when they reached the middle of the stream, on account of the terrific force of the current. We all returned disappointed, and I made up my mind that we must find some other crossing.

“August 28. We tried a place still further south of our camp, where the stream is narrower. The boys cut down a steep bank to gain access to the water's edge, but towards afternoon the stream rose a foot, and we could do nothing. I still have hopes of crossing in this neighborhood, but it will be a hard struggle. My boys deserve the greatest praise for the manner in which they have gone to work and for their patience. My gun-bearer, Karsha, who is an excellent shot, brought in a water-buck.

“August 29. I let some of the men continue their work where they left off last night, while some of us explored the banks of the river in both directions, Fred and my head man making a journey to the north, while I explored the bank of the stream ten miles lower down. I found a place six miles south of our camp, where the stream was very deep and rapid, and only forty yards wide. I thought it might be managed to pull the camels across here, so I returned to camp to prepare for the move to-morrow, and to hear Fred's report. Fred said he had gone a long way up the river, and that it would be impossible to cross.

“August 30. We marched down to the narrow part of the river I discovered yesterday, and after tiffin started the work of crossing once more in earnest. A huge rope was stretched across the stream, and from this another was suspended by a loop. A camel was brought down, a barrel

tied under his throat to prevent his head from going under, and the free end of the second rope tied to his neck. A third rope which was attached to the animal was dragged by an army of boys from the opposite bank. As soon as the camel was lifted into the swift current, the boys on the opposite side pulled as fast as they could. The camel held his head up as he sped down the current; but as the rope tightened, and the men commenced to haul the animal up-stream, his head disappeared under water for some fifteen seconds; but now there was a splash and a bit of floundering, and the camel was safely landed in spite of his ducking. A chorus of cheers went up, as, after all our trouble, we had at last found a plan for crossing. We landed eleven camels before dark.

“August 31. The work of transporting went on merrily. Sixty-five camels were taken across, and four companies landed the stores in their charge. There was much singing and shouting, but the amount of work my boys accomplished was prodigious. On occasions of this kind the Somalis are often excellent workers, but they must do everything after their own fashion. They must be kept merry and cheerful. In the afternoon, one of my poor camel-boys, Dualla Farrah, who was a bad swimmer, lost his grip on the rope while he was attempting to cross, and was swept away and drowned before help could reach him. I was surprised at the cool way his companions regarded this catastrophe. They said it was simply the will of Allah, and that they were not going to think more about it. This Dualla Farrah was the same man the fortuneteller, Goolaed Farrah, had predicted would not be with us long.”

The rest of the camels, forty-five in number, and the goods, were taken over the next morning, and then came the turn for the ponies and mules. Fred's pony was landed

dead on the other side, and one of my ponies did not survive the ordeal long. One of my mules got so much water in his lungs that he died two days afterwards. We were at last across, and should have been thankful, but the drowning of the camel-man, and the loss of two ponies and a mule, cast rather a gloom over our otherwise exulting spirits. We had had no rain now since we left Lafkei, and the river valley was very hot, the mean temperature for each twenty-four hours averaging 88° Fahr.

After a night's rest I sent men in all directions to see if they could find traces of natives, while I ascended the range of hills immediately to the west of the camp, from the top of which I could see far inland, the country appearing like a vast undulating plain, covered with the usual dried-up brush one sees in Somaliland. But a short time was allowed me, however, to take compass bearings, as I soon heard a shot in the valley below me, not far off, and, on hastening to the spot, found that some of my boys had captured a youthful Galla. They had fired in the air to frighten him, so that they might stop his flight.

It was most necessary to find some native who could tell us a little of the country ahead; otherwise, if we left the river, we could not know when we might find water, or what sort of obstacles we might encounter, so I had ordered my boys to capture any native they might see; provided they did him no bodily harm. The young prisoner was too much frightened at first to give us any information, but I took him back to camp, hoping soon to gain his confidence. Here I found that some more of my boys had caught another native, who proved to be more intelligent and communicative than the first.

One party of eight of my boys remained out all night, returning late the next morning. They said they had found a small river flowing into the Shebeli, about twenty

miles above our camp. The two Galla captives told me that this stream, which is called the Darde, came from a high, mountainous country lying far to the northwest, where it was cold and wet, and that in this country the people raised cereals, wove cloth, and lived in a town where there were stone houses. They said the name of this town was Sheikh Husein. This was most interesting news. Stone houses in this part of Africa! I made up my mind to visit this Sheikh Husein if possible. The Gallas told us of great atrocities perpetrated by the Abyssinians. The Abyssinians had completely subjugated them four years previously, carrying off their boys and girls as slaves, and capturing all their cattle and sheep.

After several hours' hard work in the afternoon, we managed to get the caravan up the steep ascent and on to the level, bushy plateau, and camped near some salt springs I discovered in a river-bed, the waters of these springs tasting like magnesia sulphate, and having the same effect.

Continuing north, we passed many villages from which all the people had fled, but we had made good enough friends of the two youthful Gallas now to trust one of them to run ahead and tell their people that friends were coming,— not Abyssinians, but white people from a far-off country, who wished to travel peacefully and make friends with every one; when we wanted food, we told them, we would pay for it, as we were rich in cloth and many things the natives would find useful. Wishing to explore the Darde, I started off with twenty of my boys and Hari Berrois, the other captive, who was now free to do as he pleased, to where my boys had reported the stream emptying into the Webi Shebeli. After marching a short time northwest, we found ourselves suddenly on the edge of a rugged and picturesque canyon a thousand feet deep,

through the middle of which the small stream, the Darde, wound its way into the Shebeli. We were not long in climbing down the precipitous walls of the canyon and in reaching the Darde, which we followed for half a mile to its junction with the greater river.

We found many footprints of natives here, but none of the Gallas themselves; so after passing a restless night by the side of the stream, without a tent, and being nearly devoured by mosquitoes, I journeyed back to the caravan.

Noticing, on our way, a man and two women far off in the valley tending sheep, I sent Hari Berrois, and some of my boys, to try to bring the three natives to our camp. They came to us willingly, and told us they were the last natives left in the neighborhood, all the rest of their countrymen having fled, thinking we were Abyssinians. I persuaded them to accompany me to the camp, and then, after loading them with presents, sent them ahead to quell the fears of their people.

Marching on, we came to some water-holes, called Feji, where many natives joined us.

CHAPTER V.

THE ARUSA GALLAS—GALLA CHIEFS TELL ME OF ABYSSINIAN DEPREDATIONS—THE COUNTRY OF THE ARUSA GALLAS—A DELIGHTFUL CHANGE—EXCELLENT FARMING LANDS—WE MEET AN ABYSSINIAN—AMUSING THE INHABITANTS OF LUKU—ARRIVAL AT SHEIKH HUSEIN—REMARKABLE DISCOVERIES—THE TOMB OF SHEIKH HUSEIN—AN INTERESTING RECEPTION—WE FIND OURSELVES IN AN ABYSSINIAN STRONGHOLD—MT. ABOUGASIN—THE HEIGHT OF HOSPITALITY ON THE PART OF AN ABYSSINIAN OFFICER—MY BOYS REVOLT—COLD AND RAINY—MR. FRED GILLETT'S ELEPHANT HUNT—MIRACLES WROUGHT BY SHEIKH HUSEIN—NATIVES—A KUDU DRIVE—SUMMONS FROM THE ABYSSINIAN GENERAL—GILLETT STARTS FOR GINEA—A CURIOUS ANIMAL—GUINEA-FOWL—JOURNEY TO THE ABYSSINIAN TOWN—MY FRIEND'S ACCOUNT.

THE natives near the Shebeli River are much poorer than those living farther to the west, but I was much struck by their refined features. They are very like the Somalis in their bronze color and curly wavy hair, and their voices are most musical and soft. The large round shields they carry, made of the hide of oxen, are usually handsomely decorated, and their single long thrusting spears are well made, though very heavy. The short javelin, or throwing spear, is only occasionally found among them. I was surprised also at the excellent manner in which many of their ornaments were made,—tiny needles of iron, wood, and horn, wooden combs, and little forceps for plucking out thorns, huge leaden bracelets, very prettily ornamented, and bracelets of ivory, being among the various things of native manufacture that attracted our attention at once. I found that they made

also very good earthenware, and wooden pots and jars, prettily shaped and usually having two handles to them. The men wore a loin-cloth, while the women's only clothing consisted of a short skirt made of sheepskin.

The natives, finding we were not Abyssinians, implored our protection against these marauders. They showed me ovens in their villages, in which they formerly used to make bread, buying their grain from the natives living in the agricultural districts about Sheikh Husein. Now, they said, they were too poor to buy anything, the Abyssinians having left them scarcely enough sheep and goats for them to keep body and soul together. Their rulers demanded as taxes more than half the increase of their flocks yearly.

Hari Berrois now left us, delighted with the many fancy brass ornaments I gave him. He was the first, but not the last, man that came to us as a captive and a beggar, and went away great and rich, according to native ideas.

Our next march was a very short one, as I wished to interview a Galla chief, who was the first man of importance that had yet appeared. The old man welcomed us most heartily, and brought us a present of some milk and a fat sheep. He was a tall, handsome man, and conducted himself in a very dignified fashion; the only thing that marred his stately bearing being the fact that he insisted upon tying about his neck an empty chutney bottle and the lid of a biscuit tin I gave him. He told me that neither he nor any of his people believed we had crossed the flooded webi, but that we must have dropped from the clouds, to rid the country of the Abyssinians.

We crossed, on September 9, the little river Darde, and camped at Berbadeh, where the river forms a small waterfall. The country of the Gallas we had gone through so far was very thinly populated, though, from

the number of deserted villages we had passed, there must have been formerly many inhabitants. Until you get well up into the mountainous region, it is dry, like Somaliland, and suitable only for grazing purposes. Towards the north it appeared to consist of a series of high plateaus and mountain peaks, rising one above the other, while to



GROUP OF ARUSA GALLAS.

From a Photograph by F. Gillett.

the south a great extent of low-lying, bushy country, containing only a few isolated, outstanding eminences, rising to varying heights of from one to three thousand feet, spread out far below us. We now commenced to rise rapidly, reaching, at the end of the next day's march, an elevation of three thousand eight hundred feet. The weather was cloudy and cool, and we began to feel a few rain-drops.

On reaching some water-holes called Roko, a chief of a village near by, named Jilo Nubonna, rushed out to meet us, and implored us to recover a lot of sheep and cattle the Abyssinians had just carried off, and which, he said, had belonged to his dead brother. I, of course, told him it would not do for us to interfere, as we wished to be friends with everybody. Fortunately, we were able to get plenty of water at the end of nearly every march, but the country was very rough for the camels. We marched about six hours daily, but only made nine or ten geographical miles in a straight line northwest. On September 12 we arrived at a place called Furza, where two chiefs, Oushe Burde and Dardi Hari, of the Wachalli tribes, who formerly lived near our crossing-place on the Shebeli River, came to us, bringing two fine eating camels, besides spears and native ornaments, which I had expressed a desire to collect. They told the same sad tale we had heard from every Galla. They were very fine-looking men, and it was pathetic to the last degree to see them break into tears as they described how the Abyssinians were reducing them to poverty. Oushe Burde was stationed at present in this country by the Abyssinians, to collect taxes, as it is the custom of the Abyssinians to enlist many natives in government service.

Our next march, of thirteen miles, took us through a very different sort of country from that to which we had been accustomed. Here and there would be open plains covered with fine green grass up to one's knees, and dotted with trees resembling our apple-trees. But we experienced the greatest change when we descended into a broad and lovely valley, and camped by some springs of good clear water, called Gorgora. Here the vegetation was most luxurious, and the variety of trees and shrubs infinite. What a delightful transformation in

nature it was for us! The light, beautiful green of the foliage, and the balmy and moist atmosphere, reminded me forcibly of spring-time in my own country, only the variety of the flora and fauna was distinctly African. Giant sycamores, pine-trees, and euphorbias spread out their limbs over veritable flower-beds.

Fuchsias, sweet-peas, and countless other plants seemed to be trying to crush each other out. Gayly plumaged birds sang away lustily, or flitted hither or thither, seeking to devour some passing butterfly. All about were fresh elephant-tracks, as well as spoor of a few leopards and lions.

We had not seen much game since leaving the Shebeli, excepting zebra *grevii* and oryx in small herds, and Waller's gazelle.

As much, however, as we had longed for rain before this, we were now to have too much of it; for during the next two months scarcely a day passed that we did not have a shower of some kind. The next march brought us in sight of two striking mountain groups about fifty miles to the west. One of these was called Daro by the natives, while the other I have named the Gillett Mountains, in honor of my friend. Little did I think that we should not get out of sight of these mountains for over two months. The country became more open, and every now and then we passed some little brook flowing south into the Darde.

We began to hear much of Sheikh Husein, and at a village where we camped on September 15, called Darrar, we met some of the inhabitants of this place. They told us they were going to hold a religious festival at Sheikh Husein in a short time, and that we should certainly be there. These people were Mohammedans, as I shall explain later. On our next march we passed many

cultivated fields; there were hundreds of acres planted in Indian corn and durrha, in all stages of growth, as well as fields of beans and pumpkins; and it was not uncommon to see oxen yoked to a rude wooden plough. This country would delight the heart of a European farmer; for, besides the fertility of the soil, the climate is most agreeable and equable. The mean temperature for the twenty-four hours was only 70° Fahr.

On the 17th of September we met an Abyssinian who was stationed at a large settlement a short distance ahead to watch over the grain and live-stock. He was the first Abyssinian I had seen, and he impressed me most favorably: Six feet in height, and of a massive, powerful build, he was a finer specimen than the majority of the Abyssinians, although I found them generally to be large sized. The man, whose name was Gabr Amaria, told me his people belonged to Curague, which is a country to the southwest of Abyssinia, and that he had been captured by the Abyssinians when a boy, and taken to Harar as a slave. After this he had been sent to Luku as an inspector. He said that the general of this country, and his army, were far to the south, waging war on the natives, and that we would have no difficulty in making friends with the few petty Abyssinians who were left about Sheikh Husein. Accordingly we marched on, under the guidance of Gabr Amaria, to Luku, and camped. Here we found quite a little settlement of agricultural people, governed by a most intelligent chief called Sheikh Ali. They were all Mohammedans, and were far superior to the Gallas I had previously met, being a branch of the Sheikh Husein people. We remained at Luku the next day to talk to the natives and to give Gillett a chance to hunt elephants, of which there were many in the neighborhood. Sheikh Ali and crowds of natives were in the camp all

day, and were intensely amused at some toys I showed them, setting up shrieks of laughter when I produced some little white porcelain dolls. We were pointed out where Sheikh Husein lay, about thirty miles to the southwest. We could never have gone in a straight line to Sheikh Husein from the Shebeli River, owing to the rough character of the country; and as it was, we had had a most difficult time of it going far north to Luku. The natives of Luku told us that it would be very difficult to reach Sheikh Husein, but that crowds of their people would accompany us, and aid us in every way, as they intended taking part in the festival. We did not reach Sheikh Husein till September 21, or three days after leaving Luku, although all hands were working hard to clear the road.

I was astonished at the beauty of the scenery. Deep canyons twisting in all manner of curves split up the country towards the Shebeli River on the north, while to the south rose the great group of mountains I have before mentioned.

All of my boys, who were fanatical Mohammedans, were delighted at the prospect of showing themselves off in their advanced ideas before the simple natives, and as it was advisable to make friends with the natives, I did not interfere at all with my boys in these proceedings, although they made the nights hideous by their chants and prayers. My boys told me they were going to show much in the way of religious forms when they reached Sheikh Husein. The condition of the natives improved steadily as we progressed toward the holy village. Some of their houses were very large, thirty or forty feet in diameter, with thatched roofs resting on a wall of posts five feet high, and passing to a peak in the centre, which rose to fifteen feet. They raise many cereals, beans, and pump-

kins, and are well supplied with honey, besides owning donkeys, cattle, goats, and sheep. The few camels they possess are raised for eating, or for their milk, but are never used as beasts of burden in this rough country. The natives, as usual, believed we had come with our large caravan only through divine dispensation.

The first view of Sheikh Husein was from a valley a little to the southeast. As we emerged from between two high mountains we came suddenly in full view of the town, a long line of thatched houses, with the five white tombs and some stone mosques, high above us on a broad-topped hill with sloping sides. One of the white, honeycombed buildings was different from the rest,— the tomb of Sheikh Husein, that illustrious traveller and priest of whom I had heard so much lately. It was a huge square stone building, forty feet across, the walls being projected above the roof at the four corners so as to form parapets, while from the centre rose a handsome dome thirty feet high. The tomb was surrounded by a high stone wall, and this again, together with two other stone buildings, was within a square a hundred and fifty feet across, surrounded by a wall ten feet high, and having a large, handsome gateway. Everywhere the stone was covered with white plaster, so that the buildings shone resplendent against the dark green of the giant euphorbias and sycamores that grew about the hilltop; and, moreover, there was a considerable attempt at ornamentation and architecture in the various structures. The body of the saint lies in a crypt surrounded by four stone columns.

As we ascended the hill slowly and in excellent order, my boys presented a most picturesque appearance. After the little party of Europeans, with the tent boys and gun-bearers, walked Idris, in gorgeous Arab costume, very solemnly, with measured tread and head bowed low,



THE TOMB OF SHIFUH HUANG.

Photograph by P. G. Mallet

and followed by about sixty of my boys, clad in clean white tobes, or cloaks, with turbans on their heads, and their bodies well smeared with ghee. After them came the long train of camels, sheep, and goats, and a motley crowd of natives bringing up the rear. By the gateway before described there were grouped some three hundred natives, with their chiefs, ready to receive us. The whole affair



WOMEN OF SHEIKH HUSEIN.

Photograph by F. Gillett.

had a touch of religious mystery about it that made it odd and amusing to the Europeans. It was now the time for our hosts to show themselves highly appreciative of the holy and tremendous event of our coming. Led by an old man with long gray hair, they went through such contortions as I never believed human beings capable of. All were provided with long sticks in lieu of spears, which they crossed with one another, making a deafening sound,

at the same time singing and shouting to the accompaniment of a huge bass drum. They clapped their hands, danced, and twisted themselves into all manner of mad shapes. After this had gone on for some time, Sheikh Ali came forward and conducted us to the camping-place that had been prepared a couple of hundred yards further on, and here again we were surrounded by a dancing, singing mob. Later in the afternoon great feasts were prepared by the natives, as well as by my boys, to whom I gave a fat camel and an extra portion of ghee.

The women were not allowed to take part in these festivities, having to content themselves by looking on a long distance off. Luckily there was only a small shower through the day, but during the night and almost the whole of the next day there was a steady downpour, and we felt the cold keenly.

Several Abyssinians came to the camp; but, from the continual tales they offered of the difficulties and dangers of the road ahead, I was afraid they were secretly doing all they could to prevent our progress. I told them I was very anxious to visit the chain of lakes that extends south from Demble, and thence pass southwest to Lake Rudolf.¹

The Abyssinians had been very polite, bringing us grain and animals for sale at reasonable prices. One young officer brought his wife, a girl of about fifteen, and told me he would relinquish all claim to her as long as I remained

¹ To the west of Sheikh Husein, twelve miles distant, there is a high, rocky, barren mountain called Abougasin, towering to the height of nearly nine thousand feet. It is quite isolated in a broad valley, and acts as a landmark in this country. After we left this neighborhood the Abyssinians informed me that at the foot of Mount Abougasin there were some curious stone figures of horsemen. Just around the southern base of this mountain curves the Webi Shebeli. I was glad of this discovery, as it had been believed by some that the Webi Shebeli arose from a chain of small lakes not far from the Erer River, but here it was coming from the high mountains about Demble, and passing at the very foot of Sheikh Husein.

in the neighborhood, if I wished to have her stop with me in camp. I had to use considerable diplomacy in this case to avoid accepting the man's offer and at the same time not hurt his feelings.

After we had been two days at Sheikh Husein, all but fifteen of our boys rebelled, saying they could not stand the



cold, and were going home at once. We managed to get the rifles away from the leaders of the rebellion, and then I told the boys that if they wished to return home they would receive no pay, food, or rifles. One by one they

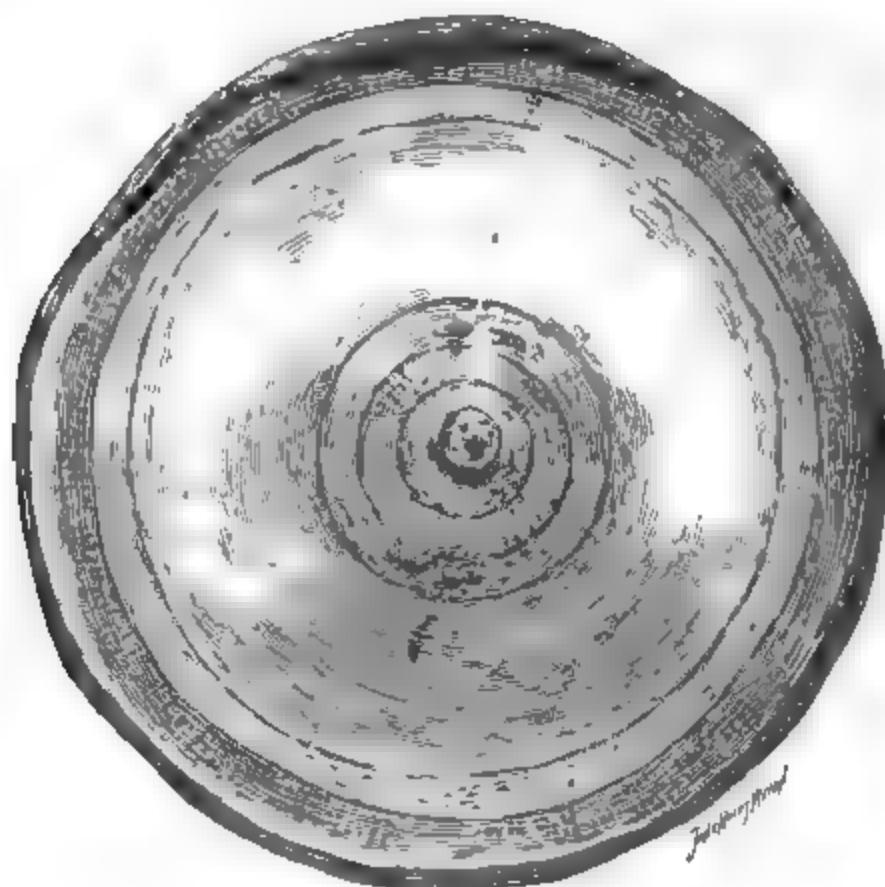


gradually returned to their work. The ringleaders were given extra hard work, and their rifles were kept from them for several days.

On the 25th of September some thirty Abyssinians visited the camp, to whom I gave a few fancy beads and looking-glasses. They and the Gallas are very fond of

small beads, brass chains, looking-glasses, needles, pocket-knives, and razors. The costly and really pretty ornaments I had with me were not liked as much as the most ordinary chains. There was a great demand for cloth. A shilling's worth of coarse American sheeting would buy a sword or knife, a bushel of durrha meal, or anything they possessed.

The rain had made the road ahead impassable, so there was nothing for me to do but wait for a while in the town.

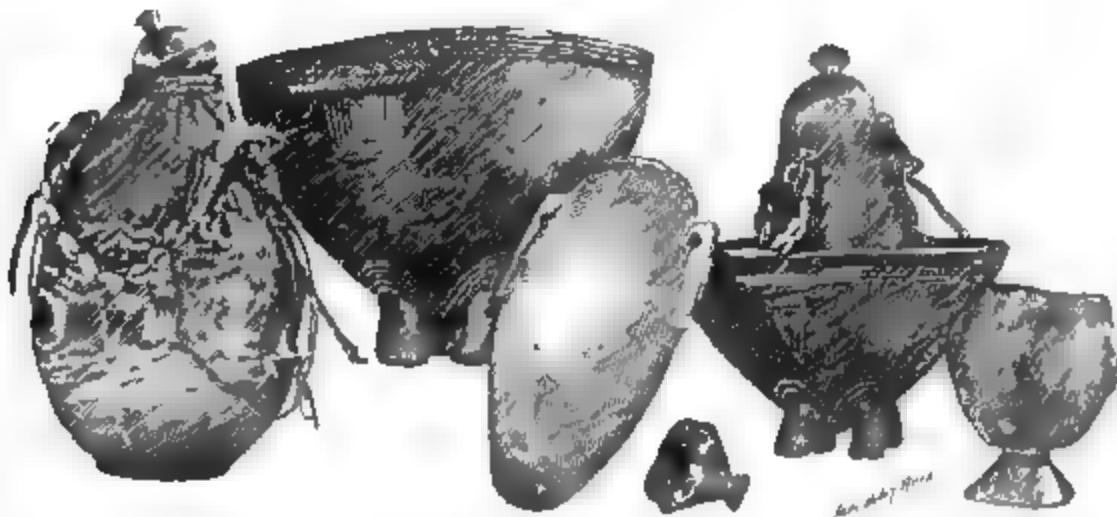


I spent the time however to advantage, as there was a great variety of natural-history specimens to be collected that I had not seen before.

Fred left for the North for a two days' elephant hunt, but he was not as successful in this trip as he usually was, and it was principally owing to my theodolite. They used to watch me in wonderment when I took observations with this instrument, and it appears that my boys had told them that when I looked through the glass I could

see anything in the country. Fred told me briefly of his journey as follows:—

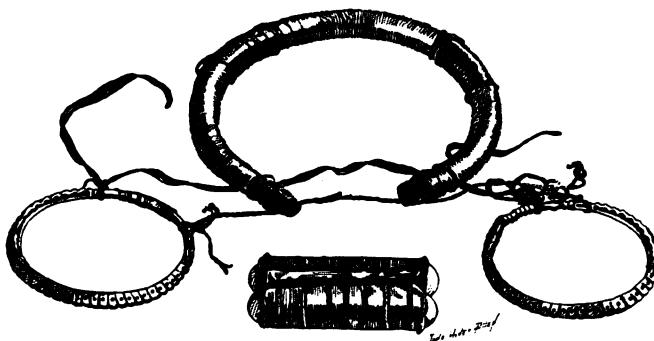
He journeyed for twenty-five miles, and on the following day his guide took him out to show him the track of an elephant two days old, and told him to look at it with his instrument, and see where the animal was. "At first I felt inclined to annihilate him; but seeing from his face that he was in earnest, and there was no humbug, I told him it was no use my looking at it. He said 'The other man looks into his instrument, and afterwards he says, "What do you call a place a hundred miles in that



direction? How many days does it take to reach a large lake in that direction?'" Not wishing to lose the man's respect, I set up my camera, and turning to him, said very gravely, 'This elephant has bad tusks,—one is broken; and as he is very far away, I will return to camp.'"

As it continued raining, and it was impossible to move, I managed to get considerable information from the natives concerning the man Sheikh Husein. Sheikh Husein came from Bagdad to this country two hundred years ago, with his lieutenant, Sheikh Mohammed, in order to convert the natives to Mohammedanism. He chose this lovely spot for his abode, while Sheikh Mohammed settled on a plateau thirty miles to the southwest. When the

two saints arrived at Harar they are supposed to have seated themselves on a rug, and to have prayed to Mohammed to transport them to some spot where they could work to the best advantage. Allah heard their prayers, and, raising them on a cloud, wafted them gently westward until they alighted on a hill in the Arusa Galla country, where they were commanded to sow their seed and create a wondrous town in the name of the Prophet. They were given a sword of Akhbar, which would slay all their enemies and protect their own holy persons from injury. And unto them was given the power of calling

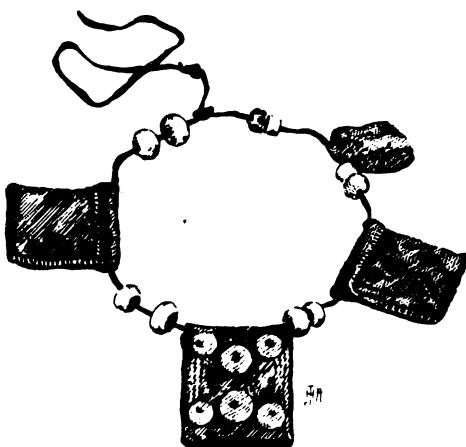


forth the rocks from the mountains and causing noble edifices to appear strong enough to resist the attacks of elephants, and with walls high enough to keep out the hungry lions.

The tomb of Sheikh Husein was erected in one night, after the death of the saint, by superhuman force. No one dares venture into the enclosure at night, as the ghost of Sheikh Husein is supposed to haunt the place. The birds are regarded as more or less sacred, and Dodson and I were warned that some calamity would befall us if we persisted in collecting them. Sheikh Husein and Sheikh Mohammed had many children by Galla wives, and their descendants form the greater part of the population of the

two settlements that have been named after them. The people are very unlike any Africans I met during my journey, as they are much more intelligent and more highly civilized. They are light in color, with slender bodies, and do not average in height over five feet four inches, their features showing strongly their Asiatic origin. They are well clothed in cloth of their own manufacture, and their necks and arms are loaded down with heavy necklaces and bracelets, made of lead, brass, ivory, or beads. The women wear a brass ornament resembling a double cylinder over their foreheads, while suspended from their heads, over their ears, are two enormous brass rings. The boys are all obliged to learn Arabic, and countless are the inscriptions from the Koran, bound in the form of books, which are to be found in the tombs.

Besides the five shining white tombs, there were several stone mosques in the town. There was also a large artificial pond, from which a stone aqueduct led into the fields for purposes of irrigation. About ten years ago there was a great epidemic of cholera at Sheikh Husein, which had swept away four-fifths of the inhabitants, leaving only about five hundred permanent dwellers. The poor natives knew so little about sanitary conditions that they buried their dead around the edge of the pond from which they drank. In great contrast to their so-called Christian rulers, the Abyssinians, I found these people to be very moral in



regard to the relation of the two sexes. They were very honest and trustworthy, and seemed to be desirous of doing anything they could to help a stranger. There were many lesser kudu in the country,—a bit of thick jungle three-quarters of a mile from camp being a favorite resort for these beautiful antelope. On the 30th of September we resolved to try to drive them, sending about forty men to beat the bushes. Fred was fortunate in securing his animal, which was a magnificent specimen, and he gives his story as follows:—

“ It was a very hot day, and as I rested my hands over the barrels of my rifle, a gorgeous butterfly came and settled on them, then flew away to a flower, and hovered around it, and came back. Birds were flying from bush to bush, making little flashes of color over the green foliage.

“ The men approached in a long line, making as little noise as possible. Happening to look behind me, I saw what I took to be an old dry branch of a tree. It seemed to move, however; so I watched closely, and soon made out the horn of a buck feeding behind a bush. It had passed me without my having noticed it, but now it was at my mercy, and the rifle rang out its death note.”

On the 1st of October two Abyssinians appeared as envoys from General Wal-da-Gubbra. They said that Emperor Menelek had appointed Wal-da-Gubbra king of this part of the country. He had returned from a war down South, and was now in his town of Ginea, within two marches of our camp. He was angry at our not having given him notice before we entered his country, and as he could not understand what we wanted, he wished that I should visit him. I asked the messengers why their master would not come to us. They replied, “ Never;” but if we would visit him, and let him see that we meant nothing wrong, he would do all he could to assist us on our

journey. As I intended going for a long time through Abyssinian territory (the country ahead being governed by Ras Dargue, a brother of the Emperor Menelek), it was indeed best to make friends with these people.

I spent the next day deliberating what I should do. It would have been impossible to move the caravan across the high, rough mountain range, to the Abyssinian town, and I did not like the idea of leaving the camp in the rather unsettled state in which it was. Fred insisted that he should go instead of me. I finally agreed to accept his kind offer. We felt it was rather a dangerous undertaking, but at the same time Fred did not think the Abyssinians would attempt to use foul play towards him while I remained behind with almost the whole force of Somalis. Gillett started off on the 3d of October, with my head man and eight boys. As soon as he had gone, a horrible feeling of anxiety came over me for his safety, although my judgment told me that no harm would come to him. I knew he would not return for a week, and this long period of suspense I must undergo would be most unpleasant. The agreement was that if I did not hear in a week from my friend, I should rush to attack the Abyssinians, leaving the camp in charge of the natives of Sheikh Husein. My Somalis were suffering much from the cold, and were very impatient at the long delay, knowing the while that Lake Rudolf was still far away.

The rain seemed to be increasing rather than diminishing, and the camp was two or three inches under water, or else a mass of mud, continually. I tried to keep my boys cheerful by instituting games of all sorts, and by drilling them night and morning, giving them also much target practice. As there was a possibility of the Abyssinians attacking the camp, these drills were a most

necessary precaution. I also offered a rupee to any of my boys who would bring me in any new natural-history specimens; consequently dozens of snakes, lizards, mammals, and curious kinds of bugs were being continually brought to my tent. My boy Karsha captured for me, in a dense bush where we had had the kudu drive, an animal fourteen inches long, and covered with long, silvery white fur, resembling the *Lophiomys imhausi*. This was the only one of these animals seen on the trip.



LOPHIOMYS SMITHII,
Rhoades, Academy of Natural Sciences of Philadelphia.

On the 5th of October, when I awoke at daybreak, I could see nothing beyond a few feet from me, on account of the fog. It was very cold, and one of my tent boys, Abdi Kereen, looked like a lost soul going to the infernal regions as he brought me my tub. My other servant, Abdi Farrah, who was the most cheerful and pleasant boy in the camp, however, came to me as usual with a hearty "Salem sahib," and started at his work cheerfully. And so it was with my men all around, — some dreadfully

depressed and grumbling, others doing what they could to keep the camp in good spirits.

The climate seemed to be doing Dodson good, for he was getting fat, in spite of his being continually at work. He proved a first-rate fellow, skinning nine or ten birds daily, besides doing much to assist me in collecting. I had a false alarm sounded during the night, and found that the men fell into their places admirably. They had been quick to learn, and by this time were in fine order.

The next day I was delighted to get a letter from Fred, dated October 4.

DEAR DONALD,— Bad road. Hope to arrive at Ginea to-morrow. Cannot be back in seven days. Will try to let you know by another note. Have crossed the Gillett range, sleeping on top last night. Very wet. Ground in swamp. Aneroids marked six thousand nine hundred feet, the highest peak being, I should think, nine thousand feet. We looked across plain, and saw the Daro and Hawatu hills. We must cross the river Darde to-morrow. Abyssinians are sending three oxen; one of them was brought to me to-day, very fat.

Yours ever,

FRED.

So we were still to spend many more days here. The situation began to look serious, and it seemed that the General Wal-da-Gubbra had much larger forces with him than I had at first expected.

About the only sport that I indulged in was shooting vulturine guinea-fowl, of which there were large flocks in the neighborhood. These birds were the greatest boon to us on our journey, and were found almost everywhere where there was water. There are three species of guinea-fowl in Africa, the vulturine guinea-fowl being extremely handsome. It is much larger than the ordinary domesti-

cated guinea-fowl, and the primary feathers on its wings, as well as the feathers on its breast, are of a rich purple color.

The rain stopped for a few days, so that I could have proceeded on my journey; but on the 11th of October Haji Idris returned from Ginea without Fred, but bringing a note from him in which he said: —

“Wal-da-Gubbra a good old chap, but he insists upon seeing you personally. Has treated me as well as he could. Promises a great present if you come, in the way of camels and mules, and also a safe journey all the way to Kaffa, to which point the Abyssinians rule. I am off for an elephant hunt.”

It seemed as if the only course open to me was to visit Wal-da-Gubbra; so I started at once on my journey to Ginea, after sending Dodson with the caravan around the Gillett range to Sheikh Mohammed, a distance of thirty-five miles. The scenery was very beautiful, and reminded me much of Norway, or mountainous parts of my own country. It was most enjoyable as we wound our way along the sides of the mountains, through dense forests of spruce and pine trees, covered with moss reaching to the ground, and crossed little brooks of clear, rushing water, about which myriads of butterflies were hovering in the moist air. We caught here and there glimpses of the valley far below us, and of the Shebeli River pursuing its tortuous course through a deep crevasse about the base of Mount Abougasin. As we approached a small Abyssinian village the officer in charge and ten of his soldiers came to meet us on their mules, and escorted us on our way. The captain and his men, seeing me catching butterflies in a net, started to collect the insects by striking them with their riding-whips. Of course they would break the insects' wings, so I had to tell them that it would

be useless to try to help me in collecting. "Why," they said, "do you only eat the wings?"

On the 15th of October, when I had nearly reached Ginea, I met Fred and his boys in the road. He had wondered why I had not come the day before, and had started back to Sheikh Husein; but he now decided he would go with me to Ginea. We were delighted to see each other, as when we parted the last time we did not know what might come of our dealings with the Abyssinians.

Sitting down at once to tiffin, we had a good long talk, the following being my friend's story of his journey to Ginea:—

"We started from the camp at Sheikh Husein at 11 A.M. It presented a most touching scene,—we might have been going to certain death, such were the tender farewells that were taken of us; the men formed a group and offered up prayers for our safety, and then one by one shook us by the hand in the most solemn manner. Our road, which led in a southerly direction, was at least eight yards across, and quite the best I had seen in Africa, being the main road to Sheikh Mohammed, made in Sheikh Husein's time, and leading through a dense jungle of bush that would otherwise have defied a passage. The two Shoans rode on ahead in great spirits at having successfully accomplished their mission.

"After a little over an hour we followed a path that branched off from the main road and led to the mountains. From this time we began to ascend. The bushes changed into trees, and they in turn increased in size till we met with some it would have taken two men to have spanned. I noticed a parasite on the trees that was an exact vegetable representation of red coral. In places we had to use the axe to make a way for the camel, cutting down large trees that barred the path. When the aneroid marked six thou-

sand eight hundred feet we came to a large field of durrha and one of pumpkins; it was much damper, moss growing on most of the trees. Up the steepest path we proceeded, great chasms of red earth yawning on either side, or else the mountain going sheer down from the feet of the mule.

“ From the top of the pass we descended three hundred feet to where we camped. This spot, heavy with moisture and reeking with wet, is another farm worked by Galla hands for Shoan mouths, durrha, wheat, and pumpkins growing in large patches,—the houses of the Shoans being surrounded by a high stockade, and the huts of the Gallas being made with wooden posts and thatched roofs. The best place we could select for our camp was a perfect swamp; and from it we could see into the plain on the other side of the range, and in the distance, about thirty-five miles off, the Daro and Hawatu hills, the latter being formed of upright columns of rock, which give it a curious appearance. Hearing that our camel was unable to bring up its load, the Shoans despatched Gallas to carry up our things, and whilst waiting for them the boys held evening prayers, and I shot a dove for my supper. We were very well treated, the Gallas being made to bring us wood, honey, milk, and durrha meal,—the honey being chiefly wax, and the milk having a peculiar flavor, caused, I fancy, by the animal having eaten some spruce, which I found growing here.

“ Owing to several showers of rain, we did not get off the following morning till 7 A. M., when, the road being said to be too bad for our camel to go loaded, eight Gallas were pressed into carrying our things, much to their disgust (but on the first sign of rebellion the Shoans clouted them over the head and forced them to pick up their loads). Our path, leading in a southeast direction, took us down into the plain, where we came to a village, and found a

beautiful black ox tied to a tree, — a present from Wal-dagubbra. After leaving this village, our road led through a forest of giant euphorbias, exceedingly dense, but, wherever it was at all open, full of elephant tracks. This forest led down to the river Darde, flowing east. It was full of water, but we managed to wade across, and halted for a short time to allow the boys to bathe and pray. After this the country changed, becoming more open, the euphorbias still large, but growing several yards apart.

"We camped at 4 P. M. at a large village in a flat, grassy country, dry, and swarming with guinea-fowl, of which I shot three, at the same time scaring a large wildcat. The following morning we again started at seven o'clock, and as we did so one of the Shoans presented me with his whip, saying, 'A great man needs one for his mule and his slave.' The Shoans mount from the off-side of their mules, and ride with only the big toe in the stirrup. We had not gone far when it began to rain; we were at once enveloped in a thick mist, and the water poured down on us until I was drenched. After an hour and a half we came to a hut and took refuge, squatting over a fire and eating chuko, a mixture of durrha meal, salt, and chilli-pepper, which was given to us in dirty wooden bowls, but was very comforting in our chilled, wet state. I now found it would be impossible for my camel to get to the Shoan camp before night, and as there was no food at the hut for my men, I determined to push on and do without my tent.

"The rain had cleared off by the time we started, and the country soon showed signs of old cultivation. The soil was exceedingly black, and ridges marked the boundaries of the crops. I asked the Shoans if it had not been so, and they replied, 'Yes; four years ago we came here and found the crops just ripe; the people fought and killed

some of us, and we exterminated most of them, and what were left died of hunger.' And men's skulls lying in all directions showed there was some truth in what they said. The rain did not hold up long, and, cold and miserable, we ambled along on our mules till far away in the distance our guides pointed out to us a hill, on the top of which they told us lay the Shoan fort. The rain cleared away just before we got to the foot of the hill, leaving me without a dry rag on my body; at the same time Haji Idris, riding up alongside of me, said, 'Are we to give up our rifles if they ask for them?' 'No,' I replied. 'Then we shall have to fight,' he answered, as he dropped behind again. One of the Shoans rode on ahead to announce our approach, and with doubtful feelings we ascended the steep slope, on the top of which stood the village, surrounded by a high wooden stockade.

"Before the door a crowd of men were assembled, and pouring through it herds of cattle. Trying to appear as dignified as circumstances would permit, I entered, and proceeded up a steep path till I reached the top. I was here requested to dismount, and, passing through another door, found an enclosure with a large circular tent in it, and a group of Shoans waiting for me, who bowed to the ground and made signs to me to enter; I did so, and was nearly suffocated by the smoke, having to throw myself down flat to be able to breathe. By doing so I discovered two Persian rugs for me, and, as soon as I could see, found the tent was made of brown blankets, and in the centre of it a large fire burning. Wal-da-Gubbra sent me a tobe, and I was quickly stripped of my dripping garments, and gathering warmth from the bright blaze without and from some darde (an Abyssinian drink) within. To my joy and surprise the Shoans were almost servile. They brought us a sheep, whose throat my men cut just

outside the tent; also some coffee, milk, bread, and honey.

" The Persian rug was too full of animal life to allow me to sleep all night, and early in the morning our guides came and advised us to send Wal-da-Gubbra some little present, — a rifle for instance. We of course pooh-poohed the idea, and put our wet things out to dry; but these I soon had to put on again, as Wal-da-Gubbra wished to see me. Preceded by his interpreter, Hazach Jarro, and followed by Idris and Ahamed Noor, I entered an inner enclosure and found Wal-da-Gubbra seated under a canopy, with a row of men at his back. In a stern voice I was asked why I had come to this country, what we wanted, and if we were sent by a king. He then told me there were very bad people ahead of us, and asked if I was not afraid of being killed. To which I replied that when God wanted a life he took it, wherever it was; whereupon the audience broke up, and after watching the soldiers file out I returned to my tent.

" The following morning, dressed in a suit of blue flannel pyjamas, so as not to be outdone by the splendor of yesterday, I again went to see Wal-da-Gubbra. This time I was shown into his private house, and besides a few boys there was no one present. He received me cordially, and motioned me to a rug at his side. He opened the ball by telling me that, being a stranger, I needed everything from him; whereupon I made him a present of a colored blanket and a bottle of wine. He then said that we could go where we liked and do what we liked, and that we must write a letter to Menelek, King of Abyssinia; upon which Idris and Ahamed Noor kissed his feet, and I, not feeling up to such an ordeal, shook him warmly by the hand. I find that if a Shoan kills an elephant it counts the same as if he had killed forty men; a lion equals ten, a leopard five, and a

rhinoceros four. Five days after leaving Ginea I went to meet Donald, and spent the night at the village, where I expected to find him; but he did not turn up. I had no one with me who could speak Galla, and had run out of food, and the natives, for what reason I could not understand, had turned nasty and refused to give us anything, whilst only a few days before when I had camped there they had showered eatables into the camp. With the few words of Galla at our disposal we tried to find out if Donald had passed, and we gathered that he had gone another way.

"The following morning we started towards Sheikh Husein, when the natives barred the way and pointed to Ginea. We marched on, however, and at first I thought we were in for a row, so persistently did the natives try to stop us. At last they brought a sheep, honey, milk, and durrha, and begged us to stop; but, not knowing what had become of Donald, I marched on. About the middle of the day I found the path cleared, then large trees cut down, then in a bad place the path had been turned to the side and a way cut fresh through the jungle, so as to allow a camel to pass easily along.

"What did it all mean? At first I could not make out, and thought that perhaps the Shoan army had marched on Sheikh Husein; soon, however, I met a native, and asking him what it meant, he said, 'Feringi' (European), and not long after I met Donald. All this work had been done to allow him to come easily to Ginea, and was the greatest honor old Gubbra could pay him. To say it was joyful meeting again does not describe it; and when the table was set under the shade of a large euphorbia and we fell to, life seemed at its pleasantest."

CHAPTER VI.

THE ABYSSINIANS GIVE ME A ROYAL RECEPTION — THE TOWN OF GINEA — OFFERS OF WIVES — GENERAL WAL-DA-GUBBRA AND HIS FAMILY — THE ABYSSINIANS — FRENCH INFLUENCE — I WRITE TO EMPEROR MENELEK — AN ELEPHANT HUNT — A GREAT DISCOVERY — A VERY BEAUTIFUL AND CURIOUS SUBTERRANEAN PASSAGE; THE CAVES OF WYNDLAWN — MEETING THE CARAVAN AGAIN AT SHEIKH MOHAMMED — LONG DELAYS — AN EXTINCT CRATER — BEAUTIFUL NEW BIRD — WE CAN WAIT NO LONGER — MARCH TO THE BUDDA.

I WAS astonished at the preparations made for my reception by Wal-da-Gubbra. A broad road was cut for us through the thick bush, more than a hundred Galla slaves having been engaged in this work. These natives were standing in groups as we passed, and, to show their respect, bowed down to the ground before us. It seemed, indeed, as if I were to be given a royal reception. When we got to within half a mile of Ginea we were met by a troop of Abyssinians, led by Hazach Jarro, Wal-da-Gubbra's interpreter. Next to the old general, this man, who was a eunuch, was the most powerful commander in Ginea. The town of Ginea is situated on an isolated hill rising from an undulating, grassy plateau to the south of the Gillett Mountains. A high, thick wooden stockade surrounds about a hundred and fifty large thatched huts, while outside of this stockade are scattered twice that number of native dwellings. A dozen large tents scattered among the huts give the place rather a military appearance.

Fred and I dismounted from our mules as we reached the gate, and, marching through a double line of soldiers, with our fifteen Somali boys, were escorted to a spot where we were to camp. A fat ox was presented to us, and large quantities of honey, darde, spiced cakes, and various Abyssinian dishes composed of meal. Certainly the Abyssinians endeavored to entertain us in every way in their power. As soon as our tents were up, the natives heaped about them loads of sweet-smelling grass, showing a refinement in their tastes that took me quite by surprise.

Hazach Jarro inquired almost at once why we had not brought our wives along. Upon our telling him that, although we were willing to risk our own lives, we did not wish to endanger those of women by taking them through a country we knew nothing of, the old interpreter asked us if he could not provide us with some of the fair sex from his own village. He seemed much astonished when we told him we were quite content with the good things which had already been lavished upon us. Many slaves were appointed to do our bidding, causing great delight among our Somali boys, as they had no work to do except to sleep and eat. I did not see Wal-daa-Gubbra until the next morning, when he sent for us before Fred and I had finished breakfast. We determined, however, not to leave our meal, but delayed a quarter of an hour, after which we were escorted, with the Somali interpreter, Ahamed Noor, who spoke Galla as well as Somali, into the principal courtyard of the town, where Wal-daa-Gubbra had his audience tent. Here was much display. Over two hundred soldiers, with their rifles, lined the enclosure. At one end was a large circular tent of black cloth, with the side and front curtains raised to form wings. In and about this were throngs of Abyssinian officers, in their beautiful red-and-white cloaks and with long curved

swords, seated cross-legged, in Eastern fashion, while in the centre was the old governor, reclining on a lounge placed upon a raised platform. This apology for a throne was covered with many Persian rugs and very gaudy silk coverlets.

The old man held out a long, thin hand, concealing his face at the same time by a red-silk handkerchief, so that I



GENERAL WAL-DA-GUBBRA AND ABYSSINIAN ATTENDANTS.

Photograph by A. G. Collie.

could only see his eyes. The first interview was short and formal, and only amounted to the interchange of a few civilities; but later in the day we paid the regent a long visit in his house, where he received us quite informally, and introduced us to the ladies of his household. The main dwelling, in which he spent the day, was a large, circular building, composed of a series of upright logs, with a high peaked roof. The entrance was high and well made, and was furnished with a door made of planks slung

on leather hinges. On one side was a raised platform, covered with cushions, for the exclusive use of the old nabob, while next to this was a small alcove occupied by his wife and daughter and their female attendants.

There was a fire burning in the middle of the room, surrounded by a low stone curbing, on which usually rested a handsome brass coffee-pot and some porcelain cups and saucers. About a dozen slave boys stood about their master, or played with two monkeys that frisked around the place. Sometimes these boys, who were only about ten years old, would become too noisy, and cause the old eunuch, Hazach Jarro, to give them all a sound thrashing with his cowhide whip. Wal-da-Gubbra is a tall, thin man, rather blacker than the average Abyssinian, but with expressive, cunning eyes, and a large, forcible mouth. He is very proud, and conducts himself with much dignity, his high forehead and stately bearing giving him quite an intellectual air; and he is also a wonderfully shrewd diplomatist, exerting a marvellous influence over his people. His officers cringe before him, and seem to delight in holding their cloaks before him that he may use them as spittoons. He carries his weight of seventy-five years wonderfully well, continually taking long journeys on mule-back. A small black-silk embroidered cap adorns his head, and a loose gown of the same material reaches to his feet; while these, which like his hands are enormously large, rest in the ordinary Abyssinian sandals, made of leather and laced as far up as the ankle.

His wife and daughter, evidently high-caste Abyssinian women, had very light complexions, resembling somewhat the Chinese, and were very stout. They were clothed in loose dresses of soft white Abyssinian cloth, and wore many silver ornaments of Abyssinian workmanship. I was astonished to see how well made some of these orna-

ments were, and how pretty and intricate were the designs. They also had a few bracelets and pins of European manufacture, and a handsome Geneva watch which they had procured from a Frenchman in Shoa. Their eyebrows had been removed, and in their place crescents tattooed in blue ink were substituted. It was their custom also to stain their gums a deep indigo blue. Like the men, they did their hair up in a series of puffs, running backward from the forehead, and smeared it liberally with butter.

The ladies were great flirts, and appeared highly amused at some toys I showed them. When it came to little naked porcelain dolls, they behaved indeed most scandalously. The old general would insist upon our drinking much darde, which is a wine made from durrha and honey,—not very intoxicating unless you drink enormous quantities of it, and which, in its white, milky color and rather sour taste, resembles the Mexican pulque. Dishes of chuko, or ground durrha meal, baked in butter and thoroughly browned, and seasoned with pepper and salt, were also placed before us to be eaten with our fingers. It is the custom of the Abyssinians to hide their faces under their cloaks when they are eating or drinking, so that, when the old general wished to take a drink from his glass bottle containing darde, one of his slave boys held a cloak before his face. Meat is eaten raw, and usually immediately after the animal is killed. It is very amusing to see crowds of Abyssinians about the carcass of a freshly killed animal, cutting off huge pieces of the quivering flesh, and then passing away to gorge themselves, far from the view of their comrades.

The Abyssinians are a fine-looking race of men, of the average size of Europeans, not burly like the negro, but very strong and wiry. Their color varies all the way from

a deep mahogany brown to the light yellow color of the Mongolian. Most of them have moustaches, and occasionally they have beards. They have a distinctly Jewish cast of features, long and narrow, with rather a hooked nose, and bright, keen, dark-brown eyes, and thin lips. Some of the women are exceedingly handsome, usually small, but with beautiful well-rounded figures, and oval faces. The most attractive part about them is their large, expressive brown eyes—which they use to great advantage—and their clean white teeth.

Being descendants chiefly of the Copts, they profess to be Christians; but I found that all they knew of the Bible were a few threatening tales from the Old Testament. The Coptic religion has been taught in Abyssinia for centuries, and of recent years Shoa has been flooded by French Roman Catholic missionaries, who have been very successful in introducing their reforms throughout the country. The shrewd Emperor Menelek has found it a great advantage to introduce a few religious ceremonies among his people, so that they might regard him and his associates as gifted with divine powers. The Abyssinians marry but one wife, but they think nothing of having many concubines. Formerly there were two rulers in Abyssinia, one residing to the north, who was by far the more powerful of the two, and demanded a yearly tribute from his neighbor in the south. The chiefs in the various countries under these rulers would frequently be stirring up rebellions; but Menelek, by his wonderful ability, has fused all the countries, north and south, into one strong, formidable empire. The regents whom he appoints over different countries are given complete power of life and death over their subjects, but they are not allowed to gain too much strength, as he continually shifts them from one position to another. The men are armed principally with

Remington rifles, besides different kinds of French breech-loaders.

Excepting a few officers who have recently been trained by French and Russian military men, there are no Abys-



ABYSSINIAN KNIVES AND MULE COLLAR.

sinians devoting their whole lives to military duty. Every Abyssinian is a soldier, and receives a little drilling from time to time, so that he may quickly obey orders when called upon to do duty in times of war. They go about with a rifle hung over the shoulder, superintending their

slaves working on the plantations, and indulge frequently on their own account in target practice.

They are very fond of elephant hunting, and shooting any game they can find. They have thus learned the use of the rifle, and many of them are excellent marksmen. Most of them fire with a rest, consisting of a stick forked at one end, while the other end is pointed to plant in the ground. These rests, which are quite short, they carry about with them, using them as walking-sticks. Though they are impetuous and daring warriors, they are careful to obey the commands of their officers, — the smallest want of discipline in this respect being punished by death or the cutting off an arm. When going to war they ride mule-back, leading also a few ponies, which they mount only when they wish to make a charge upon their enemy. They are quick in seizing advantageous positions, attacking their enemy in the dark or from ambush, or luring them on to some point where they may have them at a disadvantage. A hardier, more energetic lot of men could not be found. I made up my mind then and there that any nation attacking them would have its hands full.

Various cloths are manufactured in Abyssinia. A coarse cotton cloth, made into loose short trousers and cloaks, is worn by the poorer people, while the richer classes clothe themselves in beautiful and striking woollen cloaks of the finest texture, and wonderfully soft. These cloaks are eight feet long and doubled, so that they will cover the whole person; and, being pure white, with a scarlet band running down the middle a foot and a half wide, they make a brilliant display.

The women's dress consists of a short skirt, with a loose blouse attached.

The voices of both the men and women are pitched in a most unpleasantly high key, and their sentences are short

and jerky, the voice being raised to almost a screech at the end of each sentence. They claim their descent from Menelek, son of Solomon by the Queen of Sheba, while the Gallas, they claim, are descended from an Abyssinian princess who was given in marriage to a slave from a country south of Curague. According to Sir Richard Burton, the Gallas derive their name from the river Galla in Curague, where they gained a decisive victory over their kinsmen the Abyssinians.

Wal-da-Gubbra said it would be impossible for him to let me pass through his country without first receiving orders from Emperor Menelek. He said that if I would write to the Emperor, in nine days I could have a reply, as the journey to New Antoto, or Abdis Ababa, which is now the capital of Abyssinia, only took four days on mules; and he promised also that Menelek would surely do all he could to aid us on our journey. Accordingly, on October 17 I despatched a letter to the Emperor by some Abyssinians on mule-back, and determined to wait the nine days, at any rate, for a reply. In my letter I stated to the Emperor Menelek that I had found myself, quite unexpectedly, in his country; that I was journeying simply for the purpose of collecting natural-history specimens, and to have interesting tales to relate of a country that had never before been visited by a white man; that when we left Berbera we had no idea that the country about Sheikh Husein was owned by Abyssinians, or, in fact, that such a town existed. I begged his Majesty that he would allow us to proceed on our course, as we should interfere in no way with his people.

Crowds of Abyssinians continually came to me with various complaints, and begging for medicine.

What from the questioning, gazing crowd in the daytime, and the fleas and other vermin at night, Fred and I had

no peace whatever while in the Abyssinian town. There were a thousand permanent inhabitants in Ginea, mostly slaves, except a body of four hundred and fifty men, armed with rifles; but many hundreds of natives from all parts of the country came to the town daily, driving their flocks, or bringing salt from the south, and various marketable articles. There was a large market held twice a week in Ginea, where durrha, Indian corn, oats, beans, pumpkins, tobacco, coffee, chilli-peppers, sour oranges (introduced into Abyssinia by Frenchmen), salt, cloth, ornaments, and various utensils, besides slaves, were sold. I could buy two sacks of ground durrha meal for two tobes of American sheeting, costing at Aden less than an American dollar,—enough to last eighty men for four days.

Wal-da-Gubbra's daughter came to my tent one day and requested that I should bring about an interesting event that she had been expecting for three years! Poor woman! was she deceiving herself, or me? We were obliged to go frequently to Wal-da-Gubbra's house; but as it was always so full of fleas, monkeys, and slaves, and as carrying on a conversation through the medium of three languages was not very amusing, we made our visits as short as possible.

Wal-da-Gubbra tried to put every impediment in our way if we wanted to make any long journey; but we had heard of some curious caves some thirty miles to the south of Ginea, so Fred and I determined to evade the Abyssinians for a few days, on the excuse of elephant-hunting, and visit them.

We started off on October 22, with a guide provided by Wal-da-Gubbra to take us to the elephant country and to see that food was provided for us. We made a short curve about the hill of Ginea, and then descended precipitously

to a broad plain lying to the south. As far as we could see in that direction the land continued to slope downwards, and the hills diminished in size. After a seven-mile tramp we crossed a small river called the Denneck, a swift running-brook containing a species of chromis, as well as a kind of catfish a foot long; but here, being told by some natives that elephants had just passed, we camped, and started after these animals at once. Fred and I saw three elephants, but they were in a very dense jungle, and it was difficult to get a shot. I succeeded in bringing down one beast, after running a great deal of risk; but as we could only see a few yards ahead of us, we concluded not to continue the sport very long. Fred had very nearly lost his life in just such a thick place, a week before, by an elephant's charging at him at close quarters.

After tramping about in the morning to see if we could find elephants in a more open country, we started again on our journey to Loke,—which is the name of the country in which the caves are situated,—and marched seven miles south to a village called Illahni, where the natives provided Fred and myself and our fifteen boys with plenty of mutton, durrha, milk, and honey. The next morning, while we were at breakfast, a boy came running to us with the news that he had just seen an elephant walking through the forest below our camp. We were quick in following the boy to the spot, but after tracking for a mile, we lost the spoor in a mesh-work of other fresh tracks.

We hunted for a long time, but did not succeed in finding any of the beasts. On October the 25th we made a march of four hours south to the caves, describing many curves, and pitching towards the last part down a steep and rocky donkey path, very rough for the five camels to descend. What had appeared to me to be a level country now presented a most broken and rugged

appearance; for far below us was a deep canyon circling in a southerly direction, and connected with this were several smaller valleys. The view was superb. The pass was very rocky, but there was an absence of the thick, tangling thorn-bush so prevalent in Africa, this being replaced by rows of bushes resembling the English yew in shape, size, and beautiful deep shiny green color of its leaves, while forming picturesque groups at every turn were palm-trees, and many succulent shrubs, covered with beautiful flowering vines. Below us we could see the deep cut in the bottom of the valley, but the water was not visible until we found ourselves immediately above it.

After nearly a mile of twisting and turning in our descent, we reached the edge of the precipice, at the bottom of which were the clear rushing waters of the river Web two hundred feet below us. A little farther on, and we were at the water's edge, where marvel after marvel presented itself. Balustrades and peristyles, huge columns and arches, looking as though they had been cut and carved by the Cyclops from mountains of pure white marble, broke the water's course and lined its shores.

The manner in which the water had carved the rocks into such marvellous shapes was bewildering. There was a method about the whole scheme of columns, with their very ornate capitals, round symmetrical bodies, and splendid bases, that seemed to have emanated from the divine inspiration of a wonderful sculptor. We stood for a while contemplating the scene, and then passed under an arch and through a natural temple composed of a little group of columns of white translucent rock, supporting a roof of solid granite (see illustration, page 85).¹

¹ A specimen of the white rock which I brought back has been identified by Professor Heilprun, of the Academy of Natural Sciences, of Philadelphia, as coral limestone.



七〇七



When we emerged at the other side, words could not express our astonishment. Our Somali boys, usually absolutely indifferent to beautiful scenery, could curb their enthusiasm no longer, but with one accord broke out into a prayer, so thoroughly were they convinced that what they beheld was the work of God, and was intended to impress men with the greatness of his power.

The river broke around a little group of rocks, and joining again made a short dash, as it fell a couple of feet, and passed through the most superb archway it can be possible to imagine. The whole mountain appeared to be resting on a series of columns thirty to forty feet high and twenty to eighty feet apart, between which were spacious vaulted chambers, with their domes rising many feet higher; and then again many columns uniting formed long arched tunnels. Along the edge of the river, as it passed through the mountain, the columns occurred in masses, or occasionally only a few yards apart, their great bases forming a series of steps down to the water's edge.

It was possible to enter the caverns through the large archway, but there was another entrance that could be better reached by climbing up a steep bank, and then passing between masses of rock to a hole in the mountain-side, like the opening to Rob Roy's cave by Loch Lomond. This is the way the natives were accustomed to enter. You had to let yourself down carefully some twenty feet, until you found yourself in a large gloomy chamber, where natives had offered up sacrifices evidently for generations. There was an enormous fireplace on one side, over and about which were hung various offerings that had been made to Wak, consisting principally of wooden vessels, strings of cowry shells, sheepskins, and leather straps.

Lighting candles, we passed a hundred yards through the various archways and chambers, and then found we

could go no farther on account of the mountain's having caved in. The other side of the stream, however, continued quite open, but we could not cross, as the river was too deep and wide.

The Abyssinian guide said it would be impossible to get any food here. We had seen no natives since leaving Illahni, where the inhabitants had pretended they were unable to feed us if we went to the caves; but the truth of the matter was, the Abyssinian was afraid of our going so far away, and ordered the natives not to allow us any food. I had thought that we might be able to shoot some game, but Fred and I were only able to bag four guinea-fowl. The next morning, after a hasty glance at the southern extremity of the cavern, we were obliged to start back, in spite of our desire to explore the caves at length; but we did not leave until I had given them the name of the "Caves of Wyndlawn," in honor of my old summer home near Philadelphia.

After sending the camels ahead, Fred and I and a few boys skirted the mountain, which rises six hundred feet above the valley, to find the southern exit of the river. We found the stream rushing forth from its stony bed, after having carved a road for itself a mile long in an almost straight line south.¹ At this opening there was a more

¹ I was informed that the river Web flowed into the Jub or Webi Ganna, being joined by the Denneck just south of the Caves of Wyndlawn. Far to the south another river flows into the Web, formed by two streams called the Mana and the Wabera, each the size of the Denneck (which is twenty-one feet wide, a foot and a half deep, and flows at the rate of three miles an hour). The Web and the Mana and the Wabera all arise from the great plateau, eight to nine thousand feet high, called the Budda, which lies west of Sheikh Mohammed. The Web, arising from a high mountain called Wargoma, is thirty yards wide, three to four feet deep, and flows at the rate of five and a half miles an hour as it passes through the Caves of Wyndlawn. I was also informed that the River Jub, which is called simply Canale in this neighborhood, comes from a country far to the west, called Jum Jum, beyond the country of the Boran. I afterwards visited a tribe called the Jan Jams, who told me that the Jub rose immediately to the north of their country.





rugged and grander series of chambers and arches than at the northern end, but the beautiful outlines were wanting. Just at the mouth of the cavern the river fell a few feet over a mass of broken arches. The mountain had been broken down somewhat, so as to form a semi-circle about the exit of the river; but all around, like radii from the central arch, were to be seen the tunnels, winding in all directions beneath the great arches forty feet high.

No one who may in future years visit these caves will ever accuse me of having exaggerated their wonderful beauty.

We soon overtook the camels, and continued on fast to Ginea, which we reached at twilight, after marching continually all day. A great reception awaited us. I sent two of my boys ahead to inform Wal-da-Gubbra we were coming, when we were only a mile from his village; but in the short time allowed him he collected a body of a hundred soldiers under arms, who met us just as we reached the village, and escorted us with great show to our old camping-ground. Besides the soldiers, crowds of natives came to meet us, and we had to undergo much hand-kissing, as we met many old friends. We spent the next day in the village, making ourselves miserable talking to the inquisitive natives, who would not allow us a moment's quiet. I kept continually dispensing medicines and giving medical advice. When I told the interpreter, Hazach Jarro, I could give him no more of my precious quinine, he tried to induce me to part with a few grains only, by offering me a beautiful slave girl as a permanent gift.

The people believed they were giving us a royal reception, and we were obliged to look pleased; but secretly we were annoyed at the idea that Wal-da-Gubbra was trying to induce us to turn back from our journey. We had a

long interview with the old man and the ladies of his household, in which many jokes and pleasantries were exchanged; but nothing was accomplished in advancing my plans. However, I reminded the general of his promise of camels, to which he replied that he would have a handsome present ready for me in the morning.

It rained during the night and the following morning, to our great disgust; but during a little break in the clouds I determined to move outside the village and make a start, at least, for Sheikh Mohammed. Fred and I bade good-by to Wal-da-Gubbra, the interview lasting a long time, as I had expected. He was most anxious that we should not move the caravan, and my hints that I should be obliged to push on if we did not get plenty of food given us had considerable effect, as he gave me four milch cows and their calves, and promised to feed all my men while they remained in his country, and also to make me a good present later on. We then left his village, after receiving many demonstrations of respect from the natives on all sides.

The following morning we made a march of fifteen and a half miles to Sheikh Mohammed, the road leading through a grassy, undulating plain, where there were scarcely any trees. The country bore evidence of having been densely populated, not long since, by a thrifty agricultural people, large ponds having been dug on all sides, and a regular system of drainage carried out. At present nothing was growing but long, coarse grass, and not a single permanent dweller was to be seen. On the march I saw a species of antelope resembling a clippsspringer, but larger, which was then unknown to me.

We were delighted to reach the camp, and find everything in excellent order, and Dodson looking as hale and hearty as possible. It had been nearly a fortnight now

since we had seen the caravan, — which was like a home to us, — and great appeared to be the delight of the boys as they gathered around Fred and myself.

I told Fred about the new antelope I had seen, and he spent the next day hunting it, while I employed my time arranging stores and taking observations. On boiling a thermometer I found the elevation of Sheikh Mohammed to be 7,200 feet.

The Abyssinian commissioned by Wal-da-Gubbra to provide food for us only brought two sacks of unthrashed oats, and upon my upbraiding him for not supplying proper food, he replied that his country was very poor, and that he had brought all he had. After threatening to report him to his master, however, he promised to fetch better food in the morning. Fred came in after a successful day's hunt, bearing a fine male specimen of the antelope I had seen, which proved to be an Abyssinian duiker (*Cephalophus abyssinicus*).

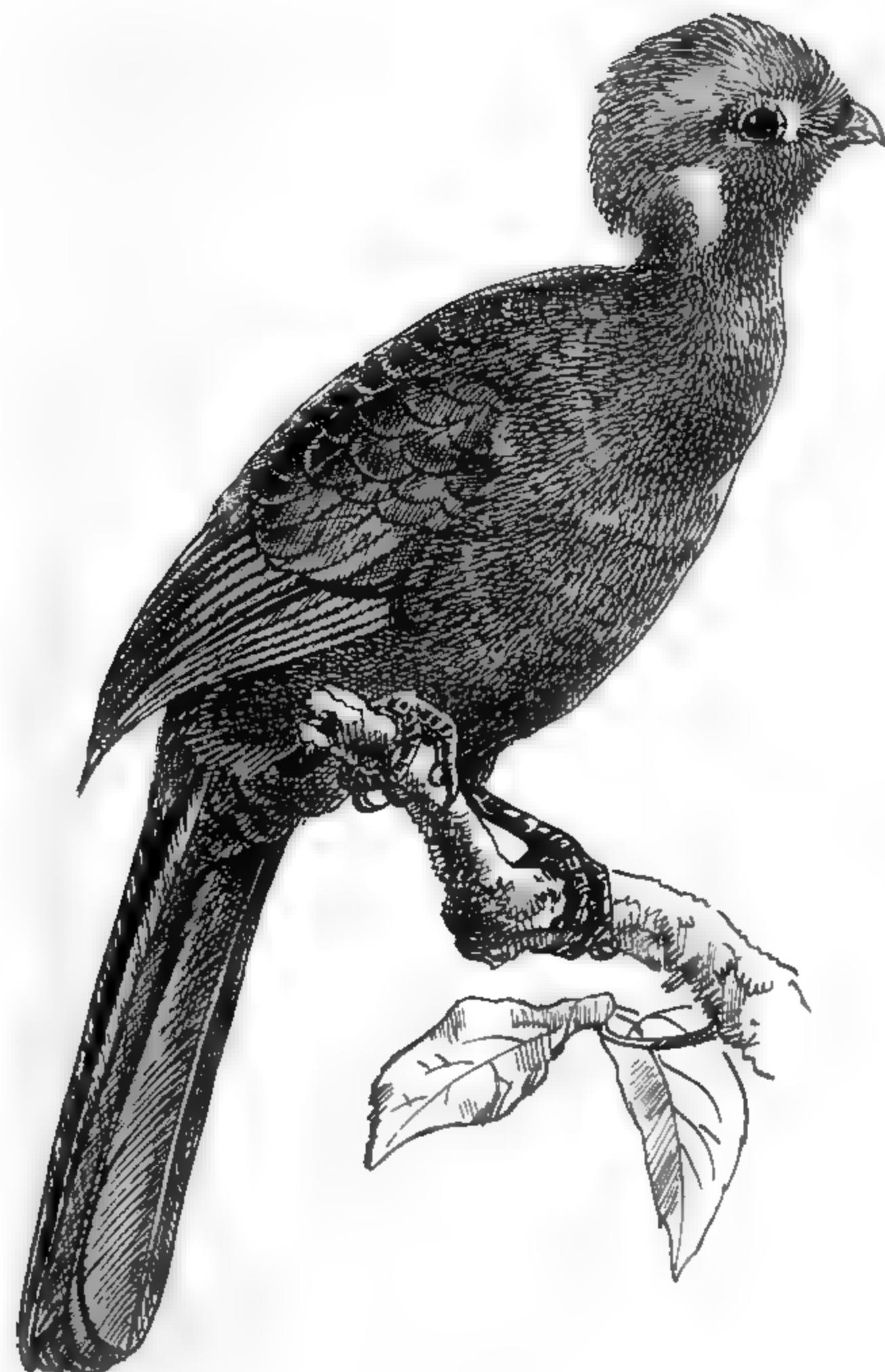
We spent a whole week more at Sheikh Mohammed, waiting for a reply to my letter to Emperor Menelek. It was very cold, and there were frequent showers, causing us great discomfort. Many observations taken during the nights and days gave a mean temperature of 59° Fahr., the mercury falling as low as 44° at night. Several of the camels died from the effects of the climate, and many more were sick.

There was much iron ore about this region, and also many evidences of volcanic action. Only a mile and a half from the camp was the crater of an extinct volcano, and at the bottom of this was a little marshy lake. I was fortunate in shooting in this high country several specimens of a beautiful turacus, which we found only in the dense cedar forests about here. The bird proved to be a new species, and has been named by Dr. Bowdler Sharpe, *Turacus*

donaldsoni. A very striking bird it was with its red, green, and blue markings, but its cry was harsh and loud, resembling a parrot's screech.

On the 9th of November two bullocks were brought into camp as a present from Wal-da-Gubbra, with a message from the general to the effect that he would send me twenty-six camels in the morning, and a guide to take us west. This news was too good to be true. Nothing was said about Emperor Menelek's answer, and the fact of the two bullocks coming, meant that the Abyssinians were simply wishing to detain us. The prospect seemed gloomy indeed. We had waited now a month in this country owing to the Abyssinians. The camels were dying, and my supply of cloth was being gradually used up. It seemed as though the Abyssinians were determined to prevent our going on; but if they intended stopping us, it was best to bring about the issue at once. Accordingly we started west on the morning of November 11 with anything but cheerful forebodings. Following a good road that leads all the way from Ginea to the capital of Abyssinia, we marched over a beautiful grassy and hilly country, where there were but few trees and bushes, and finally up a very steep pass. When we reached the summit we found ourselves on a broad grassy plain, eight thousand feet above the sea, called the Budda.

This plain extends west fifty miles, according to native report, and is then broken by the valley of the Shebeli River, while beyond it the country rises higher and higher until New Antoto is reached.



TURACUS DONALDSONI.



CHAPTER VII.

SURPRISED BY THE ABYSSINIANS — THE SOMALIS SHOW THEIR METTLE — A DANGEROUS PREDICAMENT — EMPEROR MENELEK ORDERS US TO RETURN THE WAY WE CAME — GLOOMY PROSPECTS — SALAN MOHAMMED — WAL-DA-GUBBRA NOT TO BLAME — WE BID GOOD-BY TO THE GOOD OLD ABYSSINIAN GENERAL — AN AMUSING REQUEST FROM WAL-DA-GUBBRA'S DAUGHTER — MARCHING TOWARDS SOMALILAND AGAIN — THE HAWATU AND DARO MOUNTAINS — I RECEIVE A LETTER FROM EMPEROR MENELEK SAYING THAT HE DID NOT FORBID MY GOING THROUGH HIS COUNTRY — WE TURN SOUTH — HOPES DISPELLED — WAL-DA-GUBBRA AND HIS ARMY STOP US ON THE LAGA TUG — THE EXPEDITION A HARD ONE — AT THE SHEBELI RIVER ONCE MORE.

JUST about daybreak we were surprised by a little body of Abyssinians, who rode up to our camp on the Budda with much bluster. At their head was our old acquaintance Hazach Jarro, and also the son of Wal-da-Gubbra. They had a great deal to say about our marching without first notifying the general. Why had we not waited for his present, the King's answer, etc. They asked what we intended doing. If we intended going to the Emperor, everything would be done to facilitate our journey. I told them it would be impossible to go two hundred miles out of our way to New Antoto, through such a high, wet country, where our camels would surely die, but that on the contrary I was determined to march directly towards Lake Rudolf. After a tedious conference, in which the old excuses were repeated many times, and my answers were always the same, the envoys pretended to get into a rage, and left my tent, vowing that they would

inform the general that we did not obey his orders, and that we meant to fight.

I refused to go to Wal-da-Gubbra, who, they said, was camped very near. They had hardly left before my boys rushed to me with the news that the whole army of Wal-da-Gubbra was riding fast upon us. Fred and I jumped up, and on looking out of our tents were startled to see the formidable looking body of cavalry only a couple of hundred yards off, and trotting toward us at a good pace. There was not a second to delay. I blew the alarm on my whistle, and in a shorter space of time than it takes to describe it every company was in order for defence. We were none too soon, for the Abyssinians, seeing our determination to fight rather than be taken prisoners, came to a halt only eighty yards from our camp. For an engagement our position was the worst that could be imagined. Outnumbering us five to one, they could have charged us and cut us to pieces without much doubt, although my boys were as ready and determined to fight, if fight it must be, as ever men were. We should certainly have punished the Abyssinians severely, but the odds would have been too heavy against us. I think we all felt that our hour had come; but to our relief, Wal-da-Gubbra dismounted, took his seat on a rug that was quickly spread before him, and was soon the centre of a long line of men. I left Fred, Dodson, and the boys, with the understanding that they would immediately fire should the Abyssinians attempt to take me prisoner, and walked over to where the old general was seated, accompanied by my interpreter and my tent boy Abdi Kereen, the only weapon I had being a small revolver, which I held concealed in my pocket. The old man looked as disturbed and angry as possible, and shook hands with me in a vicious sort of manner. He produced a document with a large seal, which he pointed

to, telling me it was Emperor Menelek's private stamp, and then, rising, proceeded to read the letter. As I had feared, the Emperor refused to allow us to proceed, and ordered us to return the way we had come. I had to accept the situation, bad as it was.

As it commenced to rain hard, the old general had his tent pitched, and determined to wait till morning. In the afternoon my head man Haji Idris came to me, saying he was disgusted with the expedition, and wished to be allowed to return home by way of Abyssinia. This was a splendid thing for a head man to do,— just at the critical point to desert his master, when everything seemed going against him ! I told him that if he left me it would only be as a deserter, and he would certainly have to suffer for it when the news reached Aden. I also gave him to understand that even if we should be obliged to go all the way back to the Shebeli River, I should never return to the coast before I had accomplished my object, and that I should hold him to his work to the last.

He returned to his duty in a sullen fashion, but I could never trust him after this, and had to keep a sharp lookout for everything that was done in camp. Fortunately for me, my two head men Salan Mohammed and Ahamed Aden were most loyal towards me. This Salan was by far the best man I had in the caravan. Strange to say, not once, during the whole time he was with me, was I obliged to find fault with him. He was always respectful, and a conscientious, hard worker, and exerted a great influence among the boys, which prevented Haji Idris from having his way too much.

Idris hated Salan on account of the latter's loyalty to me ; but he was too cunning to attempt to interfere with him, as he knew that if it came to an issue between us I should have Salan and a large number of boys to support me. I do

not think the prospects of ultimate success of any expedition ever seemed gloomier than did mine for the next three months. It was one continual wrestle with the desires of most of my Somalis to return home.

The next day we proceeded to the foot of the hill on which the town of Ginea is situated. Fred and I visited Wal-da-Gubbra, and were received by him in his house in the most cordial fashion. After a few useless speeches, he came to the point that Menelek's orders were definite as to our returning to Somaliland.

I tried many times to get permission to go south, informing the old man that it would not be good for the Abyssinians to stop Europeans from travelling peacefully through the country south of here.

He replied that the Emperor Menelek owned the country all the way to Mombasa! All I could do was to get him to assent to our going back to the Shebeli River by a quicker route, instead of going far north again to Luku. The next day, November 16, came a present of twenty excellent camels. This was great luck. The old Abyssinian had indeed kept his word. I took Dodson with me to visit Wal-da-Gubbra, while Fred remained to guard the camp.

We were not absolutely certain that Wal-da-Gubbra would not prove treacherous in the end, so never more than two of the three Europeans left the camp at one time. The old man said he would have our road prepared for us if we wished to go in the morning, but that he would be delighted if we would pay him a long visit. Certainly nothing could have exceeded the hospitality of the Abyssinians, and I must say that Wal-da-Gubbra acted toward us like a gentleman.

It rained early the next morning, but as it cleared up so that we could dry the camel blankets, I decided to make a

start in the afternoon. Before leaving, however, an incident occurred that made us laugh heartily. Wal-da-Gubbra's daughter sent us a present of some chuko, which she knew we liked much, and she requested us to send in return a pair of long stockings and a pair of boots. Only too glad to please her after the many presents she and her father had made us, I sent her the coveted stockings, and Dodson sacrificed a pair of white tennis shoes, amused at the thought of how short her skirts would be the next time she went into the presence of Emperor Menelek.

We started the caravan off on Fred's old road leading to Soorar Darde, where he had been elephant shooting; but the camel-men who were ahead did not know their way, and struck off on a trail that passed more to the west. Fred and I had been paying our last visit to Wal-da-Gubbra, and when we caught up to the caravan it had already gone some distance on the wrong road. Some natives, however, told us that we could make our way by continuing on this path. The road was the roughest imaginable, leading up and down the steepest and stoniest donkey trails, and through dense jungles. We worked hard the next day for six hours, but accomplished only five miles.

We were at an elevation of 6,800 feet, but now every march took us lower and lower towards the hot, low-lying country about the Shebeli River. Soon we approached the Hawatu and Daro Mountains, a most peculiar-looking range, composed principally of red sandstone. The mountains rise boldly out of an undulating plain to the height of nearly six thousand feet, the tops appearing as though they once marked the level of the surrounding country, which had been washed away, leaving only these giant columns of rock. The dark red color of the clayey soil also corresponded with the color of these great barren, rocky masses.

On the 20th of November we found ourselves in the broad undulating plain we had seen south of us on our marches to Sheikh Husein. The temperature changed considerably, and there was none of the piercing cold at night that we had felt in the mountains. Two Abyssinians accompanied us, and made the natives in the various little villages we passed cut the bushes ahead for us; but they did not supply us with half enough food, and I was obliged to draw largely on our supply of rice and dates. We continued our journey in an easterly direction, parallel to the river Daroli, as the Darde is called in this party of the country.

The country was poorly populated, and many human bones were lying about the deserted villages, testifying to the raids made by the Abyssinians. The treatment of the natives by the Abyssinians is everywhere the same,—they are whipped about like dogs, and have always the appearance of a whipped dog when their conquerors are about.

On November 22, after a twelve-mile march, we camped on the banks of the Daroli, determining to rest the next day, and let the camels recuperate. The caravan consisted of a hundred and three camels, twenty sheep and goats, and the four milch cows and their calves that Wal-da-Gubbra had given us. The next day a great surprise was in store for me in the shape of a letter from the Emperor Menelek. The letter was in Abyssinian, but translated by a Frenchman into French and English, and was enclosed in an envelope bearing a gilt crown (see Appendix).

As he stated in his letter that he did not forbid my going where I liked, but only advised me, etc., I determined once more to push for Lake Rudolf by going to the southwest. So we started off the next morning in good spirits, hardly imagining that Wal-da-Gubbra would wish to





stop us. The country was fairly level, except near the base of the mountains, where it was cut up by deep rifts. Some natives reported to me that there were a few Mohammedan Gallas living on the top of the Daro and Hawatu Mountains that had never been subdued by the Abyssinians. Their stronghold is absolutely inaccessible except to expert climbers, and it would be an easy matter for them to prevent any force from reaching them, by simply dropping stones on their heads. They breed sheep and goats, and grow much grain on top of the mountain, which is quite level; and when they trade with the people living below, they let down and raise their sheep and bags of grain by means of ropes.

The two Abyssinians that had been with us left us at Abdula, where we camped on November 25. I tried to make arrangements with the natives that they should guide us from village to village, keeping as near west as possible; but I am afraid the stupid creatures thought that if they simply took us to the nearest village, whether it were east or west, and passed us on, it would be satisfactory. At one time the native guides asked me to go to a village lying diametrically opposite to the course I wished to take. I finally made them guide us as near to the foot of the Daro Mountains as was practicable, but I was disgusted that we had not gotten farther on our way after marching for six hours. We must have marched at least fifteen miles, but only gained about four miles.

A little south of the Daro and Hawatu Mountains lies another mountain range, and I was informed that just to the east of this there were several villages of Mohammedans who were very rich in live-stock, and that the chief of these people, named Darda Tarri, would be very willing to trade with us and to supply us with guides to the river Jub. We camped the next day by the side of a small stream of clear

water, the banks of which contained much salt, which is carried off by the natives for their camels. Continuing across a fairly level country, covered with dense jungle, through which we had to chop our way, we reached on the third day after this a broad river-bed called the Laga, and camped very near the Mohammedan villages before mentioned. Many of the Reitu came to the camp, and I succeeded in exchanging a cow and a calf for a fat camel, and buying a donkey for two pieces of cloth. These people were more Somalis than Gallas, as the men had been accustomed to marry Ogaden wives.

The next morning, just as we were starting for the south, two Abyssinians arrived with a message from Walda-Gubbra that we were not to go on, and that he himself was very near. The Emperor Menelek had evidently acted treacherously toward us, and had given orders to Walda-Gubbra to stop us at all hazards. There was nothing to do but to stop and wait for the general. The disappointment was great. We were now in the same position as before I received Emperor Menelek's diplomatic letter, and we should be obliged to go back to the Shebeli River, cross it, and after going a long way south make a rush west again for the river Jub.

Walda-Gubbra soon appeared with about three hundred soldiers. I went over to where he camped, while Fred, with Dodson and all the boys, remained some distance away. The general read me a letter from Menelek, as I had expected, forbidding me to do anything but return the way I had come. The old man had had a hard time of it, riding all the way from Ginea. We kept a very strict watch during the night; but no human beings disturbed our peace, although some fourfooted creatures managed to make night hideous. A lot of hyenas made a terrific noise in the bushes near our camp, fighting with one another, until

two lions came and drove them off. Owing to the darkness, I could not get a shot at these lions; but Fred knocked over a hyena that came close to his tent, after which everything was quiet.

In the morning we retraced our steps some distance along the Laga Tug. Wal-da-Gubbra on our parting promised eternal friendship, and said he was sorry to turn us back, but that if he did not do so he would lose his head, or else his right hand. He said he had made a tedious journey of three days,—having to walk a good deal of the time on account of the thick bushes,—so as to try to smooth matters over with me. He was most anxious that I should carry with me to Europe good reports of himself and the Abyssinians, gave me two bullocks, and promised us plenty of food until we reached the Shebeli River. I tried to be as pleasant as possible to him, and made him believe, before I parted from him, that I was going straight back to Berbera.

After a six hours' march northeast, we stopped at a tug called Daro, where there was much salt in the ground. It was quite hot, the elevation of the place being 2,780 feet. We remained here the next day, as the camels had not had nearly enough salt lately. It was interesting to see the beasts swallow great masses of the salty earth. There were many oryx and zebras about, and Fred and I had considerable sport shooting them. These zebra *grevii* are wonderfully tenacious of life. One of them ran a long distance with two bullets from my .577 express through both his lungs, and did not fall until I had given him a third wound in his neck. We found zebra meat to be the best of all game, tasting like beefsteak, but with a wild flavor.

Our marches took us through a country which was very much cut up by rifts and valleys, running in a southeast-

erly direction. On the 4th of December we pitched our camp among the bushes, far from any water; but, as we had been warned by our guides, we carried enough water to last us until the next day. One of the great advantages of having camels is that you can carry water enough to last several days, if you are pushed to it. We frequently did this, but as water is a heavy thing to carry, and I was afraid of overburdening the camels, I usually trusted the native reports of water ahead, and did not have the barrels filled. Thus at times we did not reach water until long after we had expected to find it, and accordingly were obliged to suffer considerably. A journey in Africa may entail more hardship than an expedition conducted in the Polar regions. Hunger can be endured, but thirst "maddens," as my boys aptly expressed it.

There were scarcely any inhabitants between Mount Elwak, where the Reitu live, and the Shebeli River. We found a few Gallas on a tug called Galugop, but they were very poor.

On December 6 we halted by a small tug, where there was a succulent grass of a very salty taste, which is excellent for camels. As I was feeling unwell, I remained in my tent in the afternoon, while Fred went fishing in some of the numerous pools of water that lay in the river-bed, with the result that we dined luxuriously on a small perch-like fish, a species of chromis, and on oryx meat, Dodson and Karsha having managed to kill an oryx apiece. A rhinoceros came near the camp, but ran away before any one could get a shot at it.

CHAPTER VIII.

I SEND TO BERBERA FOR CLOTH AND LETTERS—A RAIDING PARTY OF OGADEN SOMALIS—WE CROSS THE RIVER—A CROCODILE GIVES US A CHILL—A PLEASANT SURPRISE—CHRISTMAS WITH PRINCE BORIS—CHARGED BY AN ORYX—I AM FORTUNATE IN BEING ABLE TO BUY RICE—LIONS ABOUT—NEW YEAR'S DAY NOTES—LIONS AND HYENAS—A HOT DESERT—AFRICAN CHILDHOOD—REPORTS OF SMALL-POX.

ON our march the next day to Finik we disturbed a rhinoceros which was asleep on the top of a very steep and stony hill. He rushed down the rocky, precipitous declivity as though he were a goat. It is a great fallacy to look upon rhinoceroses as sluggish animals, which can travel only in flat countries. They run about easily over the roughest sort of hills, seeming to prefer to cross over a mountain rather than to go around it.

We were to see no more natives now until we got into Somaliland, as they are afraid to live within twenty-five miles of the river, owing to the frequent raids of the Ogaden Somalis. Camping on December 8 on a large tug which contained pools of water at short intervals, and which was only one march distant from the Webi Shebeli, I sent Haji Idris and some of my men to the river to see if the water was high; but as they reported the Shebeli flooded, I determined to remain here for some days until the water subsided, and to give the camels a rest. There were plenty of oryx, zebras, and rhinoceroses about, and it was easy to supply the camp with food. I was

too unwell to go out very much, and spent most of my time taking observations to rate my chronometers ; but Fred and Dodson had a good time hunting, while the boys amused themselves with all sorts of games, — which they played with bits of wood and stones, — and with sham fights. The camels did not pick up as rapidly as we had hoped, so I determined to send Salan and three of my boys all the way to Berbera to buy an extra supply of cloth and to fetch our letters.

Gillett and Dodson now busied themselves writing letters, while I spent the next two days in preparing copies of my maps, and in writing articles for publication in the " Royal Geographical Society's Journal " and other periodicals. Lake Rudolf seemed far away indeed, and the chances were heavily against my being successful in turning the caravan once more toward the west. It seemed impossible to form any idea as to how long it would take me to accomplish my object. With six exceptions, none of my boys had ever been away from their homes before for a longer period than three or four months ; and now, after more than five months of hard work, we were about to enter Somaliland again, without having got near Lake Rudolf !

Nevertheless, I did not cease to hope for the best, but determined to provide in every way for a successful issue. I gave Salan an order for four thousand rupees, and told him to spend the money in buying cloth and other materials for barter, as well as camels to carry the goods, and I also commissioned him to engage five Somalis for me, so that I should have some fresh hands that I could depend upon. This was an important commission to intrust to a Somali, but Salan had proved so faithful to me that I had little doubt that he would do his work honestly and quickly. It would be necessary to go far south before

attempting to push on toward Lake Rudolf, in order to avoid the Abyssinians, so I told Salan to meet the caravan at Bari, a town one hundred and fifty miles lower down the Shebeli River, allowing him forty-five days to travel to Berbera and back (nine hundred miles) and make his purchases.

I started Salan and three camel-men and two donkeys off for Berbera on December 15, Fred, with a small body of men, accompanying them across the river. I could not go myself to the Shebeli, as I had not been able to walk fifty yards from the camp for some days, owing to my slight fever; but Fred reported the water so low that the boys could easily wade across it. He had found an excellent crossing-place ten miles south of our camp, which was frequently used by the Ogaden Somalis in their raids upon the Gallas. This was just below a broad-topped mountain called Mt. Kaldash that I had marked on my map when we first crossed the river.

We succeeded the next day in clearing a path to this crossing, and on the afternoon of December 17 made our first march for ten days. We had a new arrival in camp the night before. One of the camels that Walfa-Gubbra had given me gave birth to a young one, so that now we were to have a milch camel in camp. This camel, whose name was Gaut, was one of the best friends I had, giving abundance of milk for the next six months. The young one had to be killed, as we could not take it on the march, but Gaut did not seem to mind the loss in the slightest. A small body of my men went on ahead to the river to cut down the banks a little for crossing. They told me afterwards that just as they reached the water they saw there one hundred and fifty Ogaden Somalis on ponies coming down the broad tug on the other side, and about to cross the water to raid the Gallas. When they

spied my boys with their rifles they fled; whereupon a volley was fired over their heads, causing them to throw away their spears and shields, and run in all directions. My boys then crossed, and by repeated shouts managed to get the natives to return and give them the news they wanted of the country. The natives had mistaken my Somalis for Abyssinians. There was a great stir for a while about a reported theft of seventeen of my camels. Naturally I was very angry at this, and was resolving on plans of recapture, when news was brought that they were found. They had only strayed off through the carelessness of two of my camel-men, who were supposed to be watching them. We camped on a hill just above the water, and made all preparations for crossing the next morning. This was only fourteen miles below the spot where we had crossed the river nearly four months previously.

Dodson managed to give Fred a little excitement here. Fred told me that he had just reached the bottom of the hill when he heard something coming at a breakneck pace down the path. He at once thought it was a rhino that had been frightened by the noise of the camp. Being very anxious to get a shot, he decided to take his chances where he was, although he might not see the animal before it was on top of him. He was just getting ready to fire and then jump aside, when, to his intense astonishment and relief, Dodson, who was after a bath before darkness set in, appeared on a mule coming at full gallop. Fred said that it was the greatest piece of luck that he recognized Dodson in time to keep from firing.

We started across the river at sunrise, and before mid-day everything was on the other side. Fred, Dodson, and I stripped off our clothing and waded across, the boys having told us there were no crocodiles in this part of the

stream; but we were hardly out on the other side before the huge head of a crocodile appeared in the middle of the stream. We certainly felt very uncomfortable at the risk we had run, and resolved never again to swim in an African river. I took a rifle from one of my boys, and was fortunate enough to shoot the crocodile in the head, causing it to sink to the bottom at once. The camels walked across the river loaded, while the sheep and goats were



IN SOMALILAND AGAIN.

easily carried on the shoulders of the men. This was in great contrast to the rough work we had had crossing north of here, when the poor camel-man was washed away and drowned. After tiffin we marched along the dry river-bed by which the Ogadens had descended, and camped at sunset just at the southern end of Mt. Kaldash.

The next day, after marching ten miles south, we found some Somalis, who told us there were three villages not far off. I had completely recovered from my little illness now, and went out with Fred and Dodson elephant-hunting;

but, although there were innumerable fresh tracks, we found none of the animals near the camp. I gave Dodson a few boys, as he wished to follow the elephants, and provisioned him to stay over night; but the Somalis, unfortunately, had frightened the animals, and Dodson was obliged to return the next evening without his coveted tusks, although he had had some sport with antelopes.

A great surprise was in store for us. The Ogadens told me that a European sportsman had just come from Milmil, and was now only two marches to the west of us. We were most anxious to meet this sportsman, as we had had no news from home for nearly six months. After marching eleven miles to the south, to a comfortable spot in the great plain of Dagaboor, I wrote a letter inviting the European, whoever he might be, to come to our camp and spend the Christmas season with us, explaining to him that we were naturally very anxious to hear some European news. We were in an excellent spot for a Christmas camp. The plain of Dagaboor extends some thirty miles south of Mt. Kaldash, and is continuous with a broad strip of level country along the Shebeli River which reaches all the way to Bari. There had been a little rain on the "Bunn" Dagaboor,¹ and the many green succulent bushes about afforded excellent food for the camels. Besides, there was abundance of game about, so we could not do better than remain here for a while. The only drawback to our camping-place was the fact that the water was a little salty; but this is the case all through the country near the Shebeli.

On December 24, two days after I had sent my letter, the messengers returned, followed by a gentleman on horseback whom I recognized at once as the well-known Russian sportsman, Prince Boris. We were delighted to meet each other, and determined at once to spend the

¹ Bunn is the Somali name for plain.

festive season together in a civilized way, Prince Boris quartering his caravan of sixty men by a little pool of water not far away, so that we could visit each other continually. Not only were the three Europeans of our party rejoiced at this rencontre, but our Somali boys were in ecstasies of delight in meeting their friends and relatives among Prince Boris's followers. Our camp was in a continual state of merriment.

Prince Boris and the three white men of our party went out in different directions every morning hunting. In the afternoon we would return to camp loaded down with large game of all sorts, besides bags of quail, guinea-fowl, and sand-grouse; and then, after a bath and a glass or two of brandy and soda, the feast of the day would be prepared. Christmas day our boys arranged a beautiful centre-piece of flowers for the table, and gayly decorated our tents with greens and flowering plants, while the whole enclosure in front of our tents was spread with zebra-skins, so as to produce a striking effect. Our cooks, Aden Arralla and Mireh, prepared at the same time a most excellent dinner, the menu consisting of oryx soup, fillets of beef, sand-grouse, brain croquettes, strawberry tart, and tinned peaches. Plenty of champagne helped us through our courses, and brandy and soda and cigarettes made conversation lively until late in the night. When we finally repaired to our different tents, we said truthfully that we had never had a more merry Christmas, and only hoped our good people at home were equally fortunate.

Our heads were clear, however, in the morning, and we started out as usual hunting. I had not gone far before I perceived two oryx grazing near a clump of bushes some distance off. Stalking them to within forty yards, and then aiming behind the shoulder, I brought one of them down with the first shot. The other darted off, but I struck

him on the fore-leg with a ball from my left barrel as he was running, and then jumped on my last remaining pony,—which a boy was leading some distance back,—and started in pursuit. Just as I was on the point of overtaking him, the oryx swerved around, and lowering his horns, made a wonderfully swift charge considering that he only had three legs to go on. I was so near that I had a narrow escape from being injured by the animal, as I could barely get my pony to turn quickly enough. Many are the stories told by Somalis of exciting adventures some of their people have had in hunting oryx on horseback, the beasts frequently transfixing with their bayonet-like horns both horse and rider. I have several times been charged myself by a wounded oryx when on foot; but these were trifling affairs, as I always had my rifle loaded and ready.

Prince Boris had a little .303 sporting-rifle that was wonderfully effective. A shot from this rifle in the shoulder of an oryx would invariably bring the animal to the ground, whereas I have frequently known them to travel long distances after having been shot in this spot by a .577 express. I had many occasions on my journey to bemoan the fact that I had not taken a .303 with me.

After spending four pleasant days together, we said good-by to Prince Boris, and started on our journey to Bari. Our stop had not only been beneficial to the camels, but had done us all good. What a lot we had had to talk about! This meeting in the jungle will be remembered by us as long as we live. After leaving the "Bunn" Daga-boor, we ascended somewhat into a rough, mountainous country, stony and dry, and typical of Somaliland. Oryx, zebras, and aoule, or Soemmering's gazelles, abounded. We marched for four days a little south of east, making about twelve miles daily. In many places there was green grass, and the tugs gave plenty of water. At midday the

temperature was 97°; but as the paths were good, we would start out before daybreak, and finish our marches before the sun's rays became very powerful. We expected each day to arrive at some Somali villages that my guides kept telling me were very near, but we did not reach them till the fifth day.

On the last day of September we came to three large villages of Ogadens, who had escaped the raids of the Abyssinians, and consequently possessed enormous droves of camels. The natives who swarmed into our camp told me that there were some traders from Berbera among them with quantities of rice; so I determined to remain here a day or two and try to do some trading. Three lions kept roaring near our camp all night, and several times Fred and I were awakened by the boys telling us that the lions were quite close; but we were able to see nothing in the darkness. Nor did we hunt them the next day, as we had too much good work to do. Luckily I was able to buy nearly a month's supply of rice from the Berbera traders. These men knew of me, and were willing to take checks in payment for their rice. It was one of the greatest pieces of good fortune that could have befallen me to be able to get this quantity of rice, although I had to pay heavily for it. As it was New Year's day, I made a long entry in my diary, which I will quote:—

“BAUDEWAIN, Jan. 1, 1895.

“Never before has a New Year ushered itself in so full of possibilities of strange events happening at any day. I have had a most serious set-back, and one that would have broken up many an expedition. Starting out with the expectation of finishing my work in ten months, I now find myself back again in Somaliland, without having accomplished the one thing I set out to do,—and six months gone out of the ten I had anticipated. Would it

not be easy to imagine that six tenths of my provisions, pack animals, and trading goods were exhausted, and that my men would be determined against going west again, when they could almost hear their wives and children calling for them from the coast? But if I was unlucky in meeting an insurmountable barrier the first time I crossed the Webi Shebeli, I am fortunate in still having the means to perfect my plans, and to turn my former set-back to great accounts. I have been able to-day to replace tired camels for fresh ones, and to buy enough rice to last for a long time.

“ When the six camel loads of cloth arrive from Berbera I shall certainly be well equipped once more. There are but two difficulties that I can foresee,—one that the Abyssinians may have conquered the people farther south than I think, and that they will bring their army against us again; the second and the greatest danger, my men may desert. I have a few men on whom I can rely not to desert me, but the majority are continually doing all in their power to get me to give the word to return, and are constantly forming plans for their escape. The anxiety is most unpleasant. At any hour we three Europeans may be left suddenly with only half a dozen boys to continue our journey to Rudolf.

“ There would be little hopes of our getting through alive in this case; but Fred, Dodson, and myself will nevertheless attempt it, rather than return ignominiously to the coast. A hard trip it has been; but enough of the old year. When I am successful in '95, I shall make that journey through the Gallas and Abyssinians tell to good advantage, for full of rich results it was. Money I must spend, and plenty of it; but as I am willing to risk my life, and the lives of Fred and Dodson and eighty camel-men, to accomplish my purpose, I dare not shrink

from any expense that may increase the chances of success."

We remained at Baudewain to do more trading. The natives have a rich and well-fed appearance, their spears and shields newly burnished, and their clean white tobes making them look very smart. According to their report, the atrocities perpetrated by the Abyssinians in almost all of the rest of the Ogaden country were brutal to the last degree,—these "Christians" having devastated the whole country, killing the men and women they did not wish to carry off as slaves. At Sessabane they piled the mutilated remains of men and women into a huge pile, and then enjoyed a great dance around this grawsome object.

Lions were reported to have killed a pony and half eaten the carcass, so Fred and I thought that the animals would visit the spot again. We had two zarebas built near the body of the dead pony, into one of which Fred and his gun-bearer crept for the night, while Dodson and I kept watch in the other one. The lions did not appear, but swarms of hyenas amused us as they howled and laughed about the carcass. At one time some twenty hyenas seized the pony and dragged it at a fast run fifty yards without stopping. The power of these brutes is enormous. I saw one of them pull the horn out of a goat which had been fastened to a stake, and with another bite tear off the whole hind-leg. If the hyenas only knew their strength they would be among the most formidable animals in Africa. They occasionally kill old men and women or children, but I have never heard of their attacking a man able to defend himself.

The next march led us through a very dry and barren country, the sun's rays seeming to turn everything to a white heat, while the glare on the white clayey earth was

very severe. We passed over a plain where there was only one small row of bushes visible, far off in the distance, which seemed to be planted in a great lake. Whenever we saw such a mirage we became thirsty at once; but we had to check our desires in this respect, as we carried but very little water. There was no halting in this dry desert, so we had to continue marching to long past mid-day, when we found a few bushes with a little green on them that the camels could eat; but there was no water as had been reported. We now had to turn our course almost northeast in order to find water. The country continued to look dry and barren as the arid plains of Mexico, until we arrived at a tug where there was a little grove of cedar trees, and under these water. To the east of us rose the long chain of mountains along which the James brothers and Lord Wolverton had marched on their separate expeditions to Bari.

There were several natives at the water-holes, poor wretches who had fled from the Abyssinians, and among them was a little boy not over three years old, who amused me very much by begging for a little leather to make sandals for himself. On handing him a knife and some oryx hide, the youngster set to work like an old shoemaker cutting strips off the leather for laces, and fashioning the sandals wonderfully well. One of the first things that strikes a stranger in Africa is the wonderful rapidity with which children develop. Real childhood is unknown, although manhood is also never reached. The little ones are thrown on their own resources at such an early period that they quickly learn to act for themselves in providing for the passing hour, and little more than this is attained in after life. Our little visitor said that he had no relatives in the country, and no one to look after him, but he coolly intimated that he was going to follow the caravan till it

reached some large village, where he could earn his living by minding goats and sheep.

Starting out in the dark on the morning of the 5th of January from our camp in the cedar grove, we marched for over seven hours south across a desert that had once been covered with corn. Traces of irrigation were to be seen everywhere and many deserted villages. This was, ten years ago, the greatest grain-producing district in the country, the inhabitants supplying the nomadic tribes of Somaliland with corn. We camped by several deep round wells near the deserted village of Tur, where we found some empty cartridge shells that had been used by the Abyssinians, and which accounted for the desolation of the spot. There were many Soemmering's gazelles about the place, two of which I killed with one shot from a 45-90 Winchester, the ball going clear through the two bodies and whizzing away on the other side.

I was much disappointed in the condition of the camels. These Somali animals are the poorest specimens of camels one could possibly find. I lost four in three days. We longed to be out of these glaring barren plains, with their whirlwinds of dust, that were continually tearing up the camp and causing the greatest inconvenience, and where the little water that we got was so brackish and stinking. I suffered considerably from conjunctivitis; but I found that my sight was not impaired by the dust, however, as I managed to bring down a gazelle at two hundred and seventy yards.

Three more marches through the desert brought us to the Shebeli River again. There were many villages of Ogadens along its banks from which the inhabitants fled upon our approach; but soon finding out that ours was a white man's expedition, they became very friendly. The news was brought me that small-pox was raging near Bari,

and that we could not go there; but I believe the report was started by some of my own boys telling the natives to lie to me about it, so as to keep me from going on. Haji Idris and many of my boys pretended to be very much excited over the report, but this made me suspect all the more that it was false; so I ordered my boys to prepare for a march as usual in the morning.

CHAPTER IX.

ALONG THE SHEBELI RIVER FROM MARAKADUDU TO BARI — DARING CROCODILES — A NATIVE COUNCIL OF WAR — BEAUTIFUL BIRDS — I SHOW A WAR PARTY OF NATIVES THE DIFFERENCE BETWEEN A RIFLE AND A SPEAR — WE ASTONISH THE NATIVES — GELEDI BARI — WE WAIT FOR SALAN — ANNOYING INSECTS — ONE CANNOT MOVE FAST IN AFRICA — FISHING — I HOLD A CLINIC — NATIVES BECOME INSOLENT — FRIGHTENED BY ROCKETS — MY FRIEND'S AMUSING STORY.

FRED went along the shore shooting crocodiles, while Dodson and I caught some large fish, which we fried in vaseline. We usually used the fat tails of the sheep to fry with, but not having any of this at the time being, we thought we would try vaseline, with the result that we enjoyed our supper immensely, as there was no disagreeable taste whatever to the vaseline.

Just before starting the next morning (January 9) my men raised a great row about going on, and it was a long time before I could make them obey me. The throngs of natives that greeted us on our march after this said nothing whatever about the small-pox, and my boys let the subject drop when they saw that I was not to be stopped. Passing miles of waving durrha, and many droves of fine cattle, camels, goats, sheep, donkeys, mules, and ponies, we camped among some pine trees not far from where the natives water their animals. Here was a strong brush fence, built well out in the river to keep away the crocodiles; but even this did not prevent some of the daring creatures from breaking through every now and then and

dragging off a sheep, as I had occasion to witness. The natives sent for me in haste, saying that a crocodile had just caught one of their sheep; and indeed, as I arrived on the spot, a sheep was being dragged through the fence by a monster, amidst a volley of stones from sixty or seventy natives. When the huge brute had got his sheep into clear water, a great fight took place between several crocodiles, under the water, to divide the booty. All I could make out were their tails lashing about in the foam they created, and nothing more was to be seen of the sheep; but after the water had become quiet, several heads of crocodiles appeared eagerly watching their opportunity to again break through the enclosure. I fired at each head as it appeared, but they were too active for me to place my bullets accurately; one fellow I hit too far forward, causing him to flounder about on top of the water as he was washed down the stream, while another one sank out of sight on the report of my rifle, evidently having been hit in the brain.

Although I only managed to shoot two of them, the rest soon left the spot, much to the joy of the natives, and I was able to pass a few hours in a quiet way, collecting and map-making. But, as is so often the case in Africa, one bit of excitement was not sufficient for the day. In the evening, just as we were finishing dinner, we were startled by a peculiar yell, sounding through the bushes,—“ Ha-la-la-la,” “ Ha-la-la-la,”—and in an instant all the natives were in a great state of excitement, running from their villages and yelling at the top of their voices. They kept rushing toward a grassy plot near the river, and, from what we could hear, seemed as though they were having a terrific battle. For some time we could make nothing out of the chaos of screams and yells; but presently the news came to us that the natives had had reports of enemies coming to

fight them. Here was an opportunity not to be lost; so Fred, Dodson, and I, taking with us a few boys as a guard, walked over to see any sport that might be going on. The noise had subsided when we reached the people, whom we found seated in the form of a square, a hundred yards across. There must have been nearly a thousand warriors there with their spears and shields, making a most picturesque scene in the bright moonlight.

We sat down cross-legged among them as a place was quickly made for us, and then absolute silence was preserved for a long time. When this was becoming almost painful, a tall man walked erect into the middle of the square, planted his spear down in an emphatic manner, stood first on one leg and then on the other, pulled up his spear again, and then, after walking all around the enclosure, stopped and remained pensive for some time. We could only make out that he acted in this way to impress his audience, and to make them keener for the news when it finally came. He now called loudly, three times, "Yaweromer," "Yaweromer," "Yaweromer," which means, "I have news;" and then, with pauses after every sentence, lasting sometimes a half-minute, he told his story.

"Three days I slept down there," pointing down the river. "I took some cattle to sell at Geledi. The people of Rer Hammer came in war. I was sent to tell you to make ready, lest they come upon you. The Rer Hammer have many people in their following, Ogadens and Adones. Yesterday spies came to me with the news that we must either get ready at once and come to war, or stop and be crushed, as the people from the other side are crossing the river and joining in the war. If you do not look sharp you will be annihilated."

A low murmur went around the assembled crowd on the conclusion of this speech, and presently another orator ad-

vanced with the same cry, "Yaweromer." "I was down the river with some friends. We met a party of Adones, who spoke vilely to us, and ran off, as we had more men than they. A lot of people came across the river at Hiloaine, and are now on this side. It is better if we go after them."

Another speech followed to the same effect, and then the silence that had been preserved for a long time was broken up, the warriors jumping to their feet in wild excitement, and calling on their brothers to prepare for war. One man cried out that if they did not prepare for war in the morning he would give up his wife,—the greatest oath the Somali could take. The assemblage finally broke up in loud denunciation of their enemies, the various groups dancing war dances as they repaired to their respective villages. This news of war was not promising, although we were glad to have had the chance, accorded to few foreigners, of being present at a solemn council of war.

We might easily have a bad time of it if we marched at once down the river, as we might be mistaken by the attacking party for their enemies; and it appeared that this force, which was composed of Rer Hammer, Adones, Ogadens from the south, and people from across the Webi, was very large. We therefore did not march the next day, but awaited events. There were many rare birds about the river, such as the yellow-breasted shrike (*Laniarius poliocephalus*), the beautiful tiny blue kingfisher with a scarlet beak (*Halcyon semicærulea*), little red-breasted finches (*Pyromelana franciscana*) that flitted like bees among the waving durrha, besides many Egyptian geese, ibises, herons, and egrets.

On July 11 we marched thirteen miles, entirely through corn and durrha fields, among which were many villages. There had been a big fight, and the Rer Hammer had



NEW LARKS DISCOVERED BY THE AUTHOR — *ALAUDULA SOMALICA* (SHARPE)



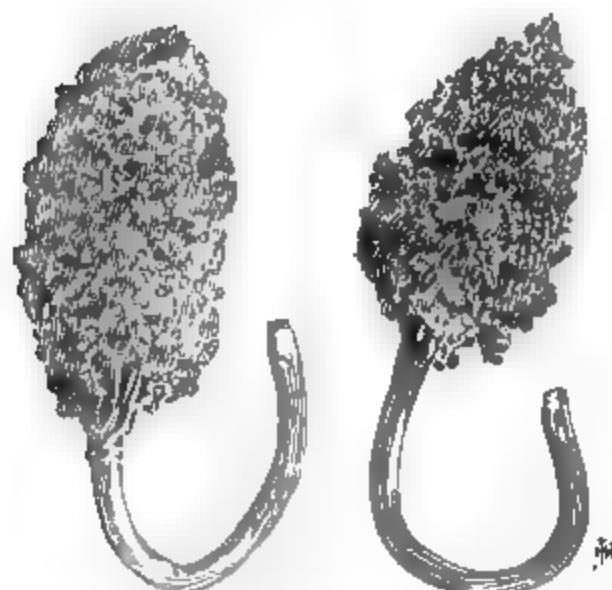
retreated. We met a large war party returning to the villages we had just left, who told us that their enemies had all been scattered. Besides the ordinary Somali spear, the people along the river use a cruel weapon with a barbed point, which is poisoned, and remains in the flesh after the shaft is detached. The war party now flourished these about boastingly, and told me they were better for killing crocodiles than our rifles. In order to give them a good lesson, therefore, I walked to the bank of the river, and pointing out a huge crocodile lying on the opposite shore, about fifty yards away, took a steady aim at the brute just behind the shoulder, and fired. The animal never moved, but a great stream of blood pouring from his side showed the assembled natives that his day was ended. Loud were the shouts of astonishment at this evidence of the white man's power, as there was scarcely one among these natives who had ever seen a European before we came among them, although they had heard much about the Europeans from traders. No expedition had been along here before, Lord Wolverton and the James brothers having gone directly from Milmil to Bari.

Both sides of the river are thickly populated. The Aulihans occupy the western shores, opposite the Ogadens, while mixed with both these tribes are many Adones, or Seedy boys. Although the natives living on the two sides of the river are deadly enemies to each other, the Aulihans kept shouting continually to us to come across and visit them, as they had much to sell us.

At the village of Bergūn, where we camped, I had a zareba built for lions, as there were many fresh tracks of these beasts about; but my only visitors were swarms of mosquitoes. The river divides here into three branches, — the two largest joining again near Geledi, — while the

small eastern branch, after flowing a few miles, disappears in a cul-de-sac in the hills.

The journey continued most interesting along the river on account of the large population and the great agricultural wealth of the district, and the variety of flora and fauna. The people expressed the greatest astonishment at our white faces, occasionally eying us with disgust, in the belief that we were diseased, and at other times proclaiming aloud their admiration. One girl followed me for a long time, until I frightened her out of her wits by charging at her on my mule. The greatest treat we had along the river was an abundance of fresh eggs and domestic fowl. The chickens here, as in all other places where I saw them in Africa, were small, resembling somewhat Bantams, usually speckled brown and white, and their flavor was excellent.



RED AND WHITE DURRHA.

On the 13th of January, being only a short march from Bari, I started ahead with my gun-bearers and my sextant, so as to reach the town in time to take a morning observation, leaving the caravan to follow at its regular slow pace. We tramped through cornfields and across a small branch of

the river, passing at one time through a dense jungle, until we reached Geledi, which is the largest town in Somaliland, containing a population of about three thousand. Here we were welcomed heartily by the inhabitants, men, women, and children flocking around in hundreds; but we stopped only a moment. In another hour we were at Bari, and as we were to remain here until Salan re-

turned from Berbera, I ordered the camp to be pitched a long way from the river, at a village called Goumer, so as to avoid fever as much as possible. The camels had suffered much in their long marches from the Christmas camp,—ten of them had died, and the rest were very weak; and to make matters worse, the natives were not willing to sell me any of their animals, as I had hoped they would.

Fred was daily out after water-buck, — of which there were many in the neighborhood,— while I employed my time rating my chronometers and in collecting natural-history specimens with Dodson. The swarms of tiny insects were most annoying, flying in our eyes, covering our papers when we attempted to write, and falling in thousands in our food. One of these tiny creatures, a little smaller than a lady-bug, emitted a most disagreeable odor,— one of them getting into our soup making it unfit to eat. I wished to send a part of my collection to the coast for shipment to the British Museum, as soon as Salan arrived; but there were only ninety miserable camels left, including the few that remained of the twenty that Fred had taken with him, so I would be unable to send more than a few boxes out.

I found that although we had made eighteen long marches, which would average thirteen miles each, since we crossed the river by Mt. Kaldash, we had only accomplished one hundred and forty miles in a direct line to Bari. What with the twisting and turning to avoid natural obstacles, and going out of one's way for water, I should say that a hundred and forty miles a month, in a direct line towards a point, represents very good marching indeed for Africa, when there is a journey of several hundred miles ahead of you, and you dare not push too hard for fear of losing your camels or donkeys.

We frequently went to Geledi or Bari to fish, and

succeeded in finding very good sport. Many a catfish did we land weighing ten pounds or over, on our nine-ounce rods. These fish, usually so sluggish in American waters, proved to be very gamy in Africa, often taking out forty yards of line at a single run. But we had the best sport with the large silvery-scaled mullet-like fish, which would rise readily, and would not allow itself to be killed before it had made many leaps. One morning Dodson and I spent only one hour at the river, and caught in that time a dozen large fish, besides shooting three crocodiles. While my boy Abdi Farrah was trying to turn one of the crocodiles over, thinking it was quite dead, the animal struck at him with its open mouth. Fortunately it was too weak to aim accurately, but merely struck Abdi's arm sideways with its teeth, giving him a nasty cut and sending him sprawling in the mud.

We saw for the first time at Bari the beautiful red-breasted bee-eaters which abound about many African lakes (*Merops nubicus*). These are most strikingly handsome birds, about the size of a thrush, with a long forked tail, blue head, and with the feathers on their backs, wings, and breasts colored with different shades of pink and red. They will remain stationary for some seconds in the air, and then dart down suddenly like a hawk to capture some cricket that may have carelessly come from its hole in the daytime.

Swarms of natives crowded around us whenever we went to the villages, never seeming to tire of gazing at the white man; and frequently there would be groups of women at work in the cornfields, who would start dancing and singing in the most abandoned fashion whenever we passed them. The natives, learning that I was a physician, came to me so often that I had to

appoint a regular hour every day in which to hold a clinic. The poor creatures would come from far and near, with all kinds of nasty ulcers and wounds to attend to. The Ogadens, who had been driven from the interior, where it is most healthy, suffered much from malaria in the Webi valley, many of them possessing the largest spleens I have ever felt.



SONALI KNIFE, SPEARHEAD, COMB, AND AMULET.

While I was fishing one day at the river, one of the natives stole a cartridge from my boy Ahamed. The theft was discovered at once, but for a time it looked as though we were going to have a fight to get the cartridge back. My boys caught the thief, who finally showed where he had thrown the cartridge, after I had threatened him with a flogging; but many of his friends, who were Adones, stood about in a menacing manner, calling at us insolently and threatening to throw their spears at us. I determined to give the natives a little

warning after this; so in the evening I sent up two large ship-rockets, which made a great report that echoed among the hills as they left their brass sockets, and, after going high into the heavens, burst with a stunning boom and shower of lights.

The effect was most salutary, crowds of natives coming early in the morning to inquire about the wonderful thing they had seen in the sky, saying they had been up all night in their villages, screaming and singing, as they did not know what would happen to them. We told them we could bring the stars down on them so as to crush all their villages, if we wished to, but that we had no idea of doing so, as long as they were friendly and did not steal.

When Fred returned to camp after his usual morning's hunt, he told me of an amusing episode that had happened to him while among the Aulihans on the opposite side of the river:—

“ I had come to the end of my beads and other odds and ends I carried as presents for the villagers, and finding it necessary to make one more present, I racked my brains to think what I could give. At last a happy thought struck me; so, taking off the paper label from a tin of jam, I made it wet and stuck it on the forehead of my black friend. His face lost itself in smiles, and by the way in which he wore it, stalking proudly about during the time I was at the village, I saw that my gift was much appreciated.”

CHAPTER X.

SAD NEWS FOR MY FRIEND — MR. FRED GILLETT LEAVES FOR BERBERA — I SEND OUT A PART OF MY NATURAL-HISTORY COLLECTION — THE WHOLE CAMP DOWN WITH FEVER — OFF AGAIN TOWARD LAKE RUDOLF — A CASE OF BLACKMAIL — MUCH SICKNESS — AFRICAN WELLS — GAME AND THE EFFECTS OF CERTAIN RIFLES — TRYING FOR LIONS BY NIGHT — AMONG THE DAGODI.

IN the evening of the ninth day after our arrival at Bari we were greatly startled by the appearance of one of my boys, named Hoori, whom I had sent to the coast with Salan. He reported that Salan was at Biaho, a village two marches from here, where he had been attacked by a party of Aulihans and Adones. Salan had shot one of these dead and wounded another, and dared not move until I sent him assistance. But now Fred received a shock that would have been hard enough to bear at any time, but which was all the more severe as it came when he was so far away in the wilderness. He had heard from one of the villagers along the river that messengers had been sent from Berbera three months previously to inform him of his father's death, and now he found that this was only too true.

Coupled with the sad news were announcements that made it imperative that my friend, who had kindly assisted me so often in my geographical and natural-history work, should return home at once. Hoori had made a very plucky run to the camp from where Salan was ambushed, having to hide about in the corn and sneak all the way in

order to avoid the Adones. I immediately despatched twenty good men, well armed, on a run to Salan's assistance. We waited all the next day, but not till late in the evening did Salan come, bringing the trading goods and letters, as I had ordered him to do. On the third day after this (January 25) Fred started for the coast, with



MR. FRED GILLETT.

nine men and ten camels. I sent out at the same time to Berbera eight boxes of natural-history specimens, and my poor sick head man Ahamed Aden,¹ who for a long time had had to be carried on a camel. I sent out only four of my boys with the collection, as the country to the north was very peaceable, and I did not want to lose any more men than I could help. A few men were sick before

¹ Ahamed Aden died before reaching Berbera.

Fred started, but that evening almost every boy in camp was down with fever. They groaned and tried to appear as if they were in terrible agony. I found only five men with a high temperature and rapid pulse, and naturally concluded that most of the men were shamming; but I afterwards learned by experience that the elevation of temperature and rapidity of pulse are not at all proportionable to the severity of the peculiar kind of malarial diseases found in many places in Africa. I found out, two days afterwards, that this type of malaria was a most distressing disease, when Dodson and I were down on our backs with pains from head to foot, and with headaches that would occasionally make us delirious. Our temperatures, however, only rose to 103° , with a pulse of 95 beats per minute. For four days the outlook seemed very serious; there was scarcely a sufficient number of men well enough to look after the camels, and I could just manage to get around the camp twice a day to attend to the sick boys.

Finally, on January 31, when half the men had recovered, under large doses of quinine, I decided to make a push once more to get across the river, knowing that if I delayed much longer I should never get on. I had secured five Ogadens at Bari to accompany me, besides the five extra men that Salan had brought from Berbera, so that my force now consisted of seventy-five men, including Dodson and myself, and sixty-five rifles all told. I had several donkeys, which I gave to the boys who were too sick to walk, while the men that were well helped along the other invalids. Fortunately, the water was very low, so that we could easily walk across, keeping the crocodiles at a distance by firing continually into the stream. During this shooting one of my boys, not counting on the bullets glancing, came very near hitting Dodson and myself. Although Dodson and I were feeling very weak from the

effects of the fever the next morning, I nevertheless determined to push on, after engaging the services of a man belonging to the Afgab tribe, who said he could take us nearly to the Ganana, and who proved to be the best native guide I ever had.

Just as we were starting, considerable disturbance was caused by a party of Aulihans who accused two of my men of assaulting one of their women. I ordered the woman to be brought up, and told her to point out the two men, as I believed she was lying in order to force me to give her a present. To the amusement of all of us she picked out the head man of one of my companies, named Husein, who had been unable to walk for some days. Travelling along fast over a flat barren country, we camped at noon on the banks of a stream called Wachago, in which there was much stagnant water. To the north were the last hills belonging to the mountain range that extends all the way south from Abyssinia. We continued on steadily for four days over the same desert-like country, without seeing a sign of any inhabitants.

We found water only at rare intervals, and it was almost unfit to drink on account of its salty taste. Though most of the caravan went ahead and camped before twelve o'clock, many of the boys would not appear until late in the afternoon, having to be helped along by their comrades. I had to remain continually behind to see that the sick were provided for, and most wearying work it was. Every day, however, showed an improvement, the exercise seeming to do the boys good. Dodson was suffering a good deal, but he was a very plucky fellow, and made no complaints. When we reached camp, we would have to lie down immediately, on account of violent pains in the back.

On February 5th we arrived at some wells called

Momingot, after having passed over a low range of hills and much stony country that differed entirely from the plains, with their white clayey soil, that we had left behind us. There were scarcely any inhabitants left in this country, almost all the people having gone to the north in order to get better grazing for their animals.

The land rises to 2,000 feet between the Shebeli and Ganana rivers, though it has the appearance of being very flat. The next march brought us to the highest point, where there was a well called Gohulle, and also a good many natives, who refused to let us drink. A single shot, however, fired over their heads, caused them to flee, and at the same time to cry out for us to take the water. They came back soon afterwards, and seemed glad to sell us two sheep at reasonable prices. The wells were dug deep through solid rock, and the water was extremely salty. It takes a long time for one to get used to drinking water from these wells. The natives allow their sheep and camels to stand about the wells the whole morning, while they are being watered, and naturally all sorts of foul matter is washed into the well. But this is not all, for after the animals have been watered the natives themselves climb down and take a bath; so one is obliged to drink a sweet solution of all sorts of African life, that is too disgusting to wash in, let alone to taste.

By boiling the water thoroughly, and then letting it settle, you may get rid of most of the organic matter it contains, but it will still have a very disagreeable taste. Adding a little alum to it helps to clear the water, and a drop or two of lime juice improves it greatly; but nevertheless, whatever you do to it does not make it a very desirable beverage.

I was called from my tent to shoot a couple of aoule that were grazing only a hundred yards off, but unfortunately

my first shot only broke the hind-leg of one of them. I was much disgusted at this, as I did not feel like walking far; but at the same time I tried to go after the wounded creature and finish him. The animal ran off for a long distance before I could get another shot at him. I succeeded, after much labor, in shooting him through the abdomen; but unfortunately I was using a 45-90 Winchester, and the animal did not appear to feel its wound in the slightest. The chase lasted an hour before I was able to get near enough to the animal to kill it by shooting it through the neck.

I had had so many experiences of this kind when shooting African game with a Winchester that I now determined to give it up, and keep entirely to the .577 express. The Snyder is better than the Winchester, as the wound produced is larger, and the whole force of the shot is expended in the animal's body. I have pierced both lungs of an oryx several times with a Winchester bullet, and yet the animal has escaped me. African beasts have much greater vitality than the animals of northern countries. I have found even the moose in Norway to succumb much more readily to a shot in the chest than some of the smaller African antelope. For a long time I carried my eight-bore with me to use against rhinos and elephants; but later on I gave that up also, preferring my .577, as I will point out.

I differ greatly from Mr. Astor Chanler in my opinion regarding Winchesters; for, though their penetration is good, they do not produce a large enough wound and thereby give enough shock to make one certain of dropping an African antelope, even though the bullet be well directed. I have tried both the 45-90 and the 50-110 with equally bad results.

Regarding the new .303 rifle, I should say that it

would be the best rifle for African shooting, although I have had little experience with it. From trials that I have seen made with these tiny-bore rifles at other objects, I believe the bullets would penetrate an elephant's skull and reach its brain from any direction; and whereas, at the same time, they have an explosive effect, up to four or five hundred yards they would be equally effective against small thin-skinned animals.



LESSER KUDU.

On February 8 we arrived at Mada Garci, a well belonging to the Afgab tribe. These Afgab are Mohammedans, and consider themselves Somalis; but they are more allied to the Gallas in blood, although their spears and shields are like the Somali weapons, only without brass furnishings, and their huge cloaks of American sheeting, or of marbur, are worn after the Somali fashion. The people were peaceable enough, but were unwilling to trade unless I gave them three times the value of their animals, although they possessed large flocks of sheep, goats, and

droves of camels. There were many lion tracks about the wells of Mada Garci, so I had a zareba built, and tethering out a sick camel, took up my position with Dodson for the night. About midnight, however, it began to rain hard, and we were forced to run back to camp, as we were afraid of fever. But we only got a few hours' rest, for about four o'clock in the morning Salan came to me with the news that lions were eating the camel we had left. I crept over quietly with Dodson, and three men I could rely upon, towards the water-hole. There was a good deal of excitement in stalking a supposed lion in the night-time, but I provided against the risk as best I could by arming Dodson with my .577, Salan with a twelve-bore shot-gun loaded with spherical bullets, and another boy with a shot-gun loaded with S. S. G. shot, while I carried my eight-bore.

As we approached the camel our hearts beat rapidly. But a few more steps, and — instead of the noble lion, a couple of wretched hyenas glided off through the darkness. Our disappointment was great, as the camel had groaned as though lions had attacked it.

After two long marches through the sparsely settled Afgab country, we found a pool of water, near the foot of a range of hills, that tasted quite fresh. One can hardly imagine our joy at finding this water, as we had not had a single good drink since we left the Shebeli River. As we approached the water a lion darted out of the bushes, but was off before I could get a shot at him. We had now passed beyond the Afgab, and were in the country of the Dagodi; but though there were many tracks of natives about the springs, they had evidently fled on our approach. There were many men still sick, and the rear of the caravan was not a lively sight, with a lot of invalids looking like grim death, and having to be urged along at every step.

The next morning took us over an undulating country, and finally up a steep pass, which was strewn with large pieces of iron ore. There were many fresh tracks of giraffe about, and when we reached the top of the pass we noticed the tracks of large droves of camels that had just been driven off among the hills by the terrified Dagodi. We came suddenly upon two natives, who were very much frightened at first, but who afterwards told us that the people had all fled on hearing of our approach, and had driven off all their cattle, under the impression that we were a looting party of Abyssinians. It was a great relief to hear that the Abyssinians were not settled in this country, and consequently would not hear of our whereabouts.

Sending the two natives ahead to tell their friends of our peaceful intentions, we continued along a well-trodden path to some water-holes in a large tug, where we were soon visited by many Dagodi. Although these people dress and live in the same way as the Afgab, and have the same religion, they are regarded as low caste, on account of their being still nearer related to the Gallas in blood. Except near the rivers, they are nomads, raising large numbers of cattle, sheep, goats, camels, and donkeys ; but along the rivers Web, Ganana, and Dawa, they are agriculturists, raising large crops of cereals, with the help of the Adones. One of the natives was about to put an arrow into my good Afgab guide, recognizing him as a natural enemy ; but fortunately the man was grabbed by some of my boys just in time to prevent the murder. My guide said that when he returned from the Ganana, he would have to travel entirely by night through the Dagodi country, as the Dagodi and Afgab are continually at war with one another.

CHAPTER XI.

BATTLE BETWEEN LIONS AND HYENAS — SHOOTING A LIONESS — POISONOUS SNAKES — WE ARRIVE AT THE RIVER WEB — THE NATIVES FLEE — MARCHING DOWN TO THE JUB — COLLECTING AND SHOOTING — A FIGHT AVERTED — WE CROSS THE JUB, ASSISTED BY THE ADONES, OR NEGROES — THE DAGODI ABOUT THE RIVERS JUB AND DAWA — MY AFGAB GUIDE RETURNS TO HIS TRIBE — THE BEAUTIFUL VALLEY OF THE DAWA — PHOTOGRAPHS AND PROVISIONS DAMAGED.

SOME of my boys found the half-eaten carcass of a lesser kudu in the bushes not far from camp, and the fresh tracks of several lions. Although I was a little afraid of the natives attacking me at night, I could not miss such a chance as this, but had a zareba built, and a donkey tethered in front of it. I had hardly settled myself at sunset, with my gun-bearer, Warsama, inside the enclosure, when three lions appeared suddenly from the bushes opposite, and made a rush for my donkey. My heart gave a great beat of joyous excitement; but the next instant a cold feeling of disappointment spread over me that made me almost numb. To my disgust, the donkey had managed to tear away from his fastening, and had run off, followed by the three lions. I knew there was no use stopping longer in the zareba, for the lions would certainly prefer the fresh meat of the donkey, and never return to the kudu; so I hastily pushed aside the branches with which the opening to the zareba had been filled in, and started out with Warsama in pursuit of the beasts. To my great surprise I saw the three lions scuttling away in the bushes

as we approached the donkey, which was standing only a couple of hundred yards from the zareba, trembling from head to foot, but quite uninjured.

The lions appeared to have followed him only for sport, not being hungry; or else they intended to play with him for a while, as a cat would with a mouse. However that may be, we brought the donkey back, and fastened him as securely as we could to his old post; but our sensations were not at all pleasant while we were engaged at this work, as it had grown quite dark, and we knew we were surrounded by lions. We safely entered the zareba, nevertheless, and shut ourselves in before any of the animals appeared again.

I now spent a more interesting night, probably, than it will ever again be my good fortune to experience. The lions came directly to the zareba, creeping close up to it on all sides, except where the hole was made opposite the donkey. I could not see them to shoot at when they were so close, as the zareba walls were too thick. I tried, by stretching myself flat on the ground and holding my rifle in front of me, to see if I could get a shot at a lion's head from some opening in the zareba; but although I could hear the brute sniff and growl, and almost feel his breath, as he also lay outstretched, with his nose touching the wall of the enclosure, and only two feet from my nose, I could make out no object at which to fire. As I lay this way quietly, scarcely moving a muscle, with several lions at once sniffing around the zareba, I could not help feeling that the beasts might take a fancy to jump in. But soon their attention was called to another quarter. A pack of between thirty to forty hyenas made a sudden attack upon the lions.

No one who has not experienced it can have any idea of the noise that a lot of hyenas can make when they are engaged in a fight. Their howls change to deep, loud

roars, very nearly equal in strength to the roars of lions. There were sudden rushes on the part of both the lions and hyenas in the present case, terminating in ferocious battles, in which it was hard to distinguish the roars of the lions from the noises made by the hyenas. Several times the encounters took place in front of the hole in my zareba, too far away for me to do any shooting; but I could easily make out the forms of the animals in the starlight. The scene was wild and interesting in the extreme, while the roars of the animals thrilled every nerve.

But hush! what was that? I heard a growl in the bushes in front of my peep-hole, and behold, to my joy, a splendid lioness walked out, only thirty yards in front of me! I took as steady aim as I could with my eight-bore, after having fastened a little piece of white paper to the beadsight, and pulled the trigger. Bang! and then what a roar! She was not dead, but I knew she would be mine — or I would be hers, one or the other — later on. The bullet had struck her just a little too far forward, and lower down than I had aimed, and had broken her shoulder to pieces. With a spring she was back in the bushes, where she spent the rest of the night growling and snarling, the sounds only dying away as daylight appeared.

In the morning, having sent for some boys to drive the animal, I started around to take up my position on one side of a mass of bushes, where I thought the beast was concealed, when suddenly the lioness rose from the thick grass with a growl, not more than seven yards ahead of me. Before I could take aim, she was back again in the bushes with a mighty leap. It was most fortunate that her spring was in the opposite direction from me, for by all odds a wounded lioness is the worst beast to encounter in Africa.

I took my .577 now, as I could shoot more quickly and





accurately with this rifle, and proceeded to have the bushes driven ; but I found it very difficult to dislodge the lioness. She would appear every now and then in some opening, and the next second would spring back again in the bushes. On one of these occasions I gave her another shot in the same shoulder that I had broken the night before. Finally a boy called to me that he could see the lioness lying in the bushes very near me. I went over to him, and sure enough, there was the beast, very near indeed, — only ten yards away, with her head flattened against the ground, snarling and looking straight at us. But the next instant almost my rifle rang out her death note, and the lioness simply stretched out her legs, without ever feeling the ball that had hit her, as I had struck her in the back of the neck.

Nothing more was seen of the lions, but I returned to breakfast in a very happy frame of mind, having bagged my lioness, and having been a witness to a most interesting and splendid battle. Natives had told me that hyenas frequently attack lions in packs, and that they often get the better of the kings of the forest; and now I had been given an opportunity of satisfying myself on this point, as the lions were certainly getting the worst of it up to the time I fired at the lioness.

As the camels were showing the effects of the long journey from Bari, — five of them having died, — I remained two days at this spot, which the Dagodi called Bargheilo, to give them a little rest. There were several villages here, but all I could buy from the natives was twelve sheep, and some chicken eggs, which were always a great luxury to Dodson and myself.

The temperature averaged 95° during the whole time the sun was up, and did not fall below 88° at night, while strong winds that came from the south struck one like blasts from a hot furnace. We continued our journey

again on February 14, over a mountainous country, where the bushes and trees showed a good deal of green,—passing many villages and natives with their droves of camels and large herds of cattle.

After spending the night at some water-holes called Barmetawen, where the water was a little fresher than usual in this country, we marched at first in a southwesterly direction, over a hilly country, gradually descending towards the Ganana River. But this soon changed to a flat desert. There was very little game to be found all the way from the Shebeli River to the Ganana, only occasional bands of oryx and a few gazelles, with the exception of one or two places where I found lions and giraffes; but there were many beautifully marked poisonous snakes to be found about this country, as well as puff-adders and cobras.

On the 17th of February we arrived on the river Web, which I had first seen passing through the caves of Wyndlawn, and here I joined the lines of march of Prince Ruspoli and Captain Bottego. Until I was told by the natives on the spot, I had no means of ascertaining which way these two Italians had travelled. Prince Ruspoli left no report of his journey, and excepting a very few natural-history specimens which his assistants collected, and took to Europe with them after their leader's death, his journey was without result. Captain Bottego did much better work, but his map I had not then seen. His reports were published while I was still on my journey to Lake Rudolf, and show that he went a long way up the Jub.

The lines of march of the two above-mentioned travellers were marked by continual attacks upon the natives, and naturally, therefore, the Dagodi fled as we approached the Web. It was a long time before I could get any of them to approach.

Just as we were coming to the river bank a couple of

auole trotted by, close to the caravan, and as I fired at one of them with my .577 express, the animal dropped, but got up again, and started off at an amazing pace on its two fore-legs, giving my boy Yusif, who is a swift runner, a long chase before he overtook it. My bullet had smashed through both hip joints, and yet the beast had managed to run three hundred yards before he was caught. The natives had evidently not known of our approach until we were almost at their villages, as many camel blankets, ropes, water vessels, and cooking utensils were left in their suddenly deserted houses. They had simply made off with their camels, leaving everything else behind. This was very provoking to me, as the natives all along had been very unwilling to trade, and I had fully expected to be able to buy camels when I reached the Web; the large amount of cloth which I was carrying, and which was very bulky, I wished to exchange as soon as possible for animals, so that I could push on faster.

Now that I had found that the natives had run away from us, I sent some of my boys on a run to capture their camels, so that I could force the owners to take a reasonable price for them.

The result was that a drove of about one hundred camels was brought to the camp in the afternoon, followed by their owners and an old chief of a village near at hand. The natives told me that the few camels they possessed were scarcely enough to keep them alive, the old chief falling



DAGODI SLING SHOT.

down on the ground as he gave me a piteous tale of previous deprivation, caused first by the Abyssinians, and afterwards by Ruspoli; but upon my consenting to let him have all his camels back, and not force him to trade, he produced two fine animals, and offered to sell them to me for eight tobes,—a bargain that was quickly settled. The chief said that Ruspoli had come to the river Web from Karanli, a village on the Webi Shebeli far to the north of Bari, and had then descended the Web to a point a short distance below Behr Madu, where we were camped. As this adventurer had taken everything from the natives that he could lay his hands on, they were not going to trust any men armed with rifles in the future, but had resolved to flee to some villages further on, where they would unite and fight us.

I could not cross the Web, as the banks were too steep, and the water very deep, so I marched down the stream to Buntal, where it joins the Ganana, and where there was a good crossing. Dodson and I enjoyed good sport fishing, and shooting some of the numerous water-buck that were to be found about the river, while at the same time we found much to collect in the way of natural-history specimens. Here we saw for the first time the large green bee-eaters, *Merops superciliosus*, which were very numerous, and also a tiny squirrel (*Sciurus ganana*, *Rhoades*) which proved to be new to science. There was much deep forest along the river Web, so that the caravan road sometimes led a long way from the water. I now lost my last remaining pony, which had been too sick for me to ride for a long time.

On the second march from Behr Madu, three miles before you reach Buntal, I passed the junction of the Web and the Ganana, and soon after that I observed the river Dawa emptying into the Ganana from the west. Although

I had returned the camels to the natives, and they had given us guides, we could not for a long time gain their confidence; as we passed each of the numerous little villages on the way, the people fled, driving their flocks into the bushes, and leaving everything else behind. One or two old women remained in their homes, in some instances, and implored us not to kill them; they said they had been "humblebugged" by Ruspoli's men, and would not believe my protestations of peace.

When we arrived at Buntal, we found large numbers of natives assembled, evidently for the purpose of fighting; but fortunately the old chief, who had accompanied us from Behr Madu, had now begun to trust us, and insisted upon his people making friends with us. After a long conference held in a cornfield, everything was settled amicably, the Dagodi agreeing to sell me a camel and ten sheep, and to provide Adones to help us to cross on their rafts. These Adones were treated as slaves by the Dagodi, and were forced to do most of the hard work in the fields.

They went about the Jub naked; but, although much below their masters in intelligence, they were wonderfully well developed physically, their muscles standing out under their black skins in great masses. Many of these burly, woolly-haired negroes had wandered but recently to this country from the south, and could speak Kiswahili.

The next day after our arrival at Buntal the work of crossing was carried on. The Ganana was eighty yards wide opposite our camp, and from three to seven feet deep, with a current of four and a half miles an hour; but a mile lower down it widened out to nearly three hundred yards, and contained several small islands. As it was correspondingly shallow, I had all my camels led across at this point, but all the trading goods and boxes were taken

across in my boat or on rafts, opposite our camp. The Adones turned in and helped us well, so that before noon we were all across and camped on the western shore.

On this side there were but few people, as the country was wild and bushy, with long stretches of dense forest, the trees being principally dhum palms, sycamores, cedars, and a tall tree resembling the poplar. The Dagodi about the river much preferred marbur to the American



NATIVES OF BUNTAL (SITTING).
SOME OF THE AUTHOR'S ESCORT (STANDING).

sheeting, as they had been accustomed to getting this cloth from traders coming from Merka and Modisha, two Italian ports on the Gulf of Aden, to the east of the mouth of the Jub. They were provided with long heavy spears, with broad large blades, which were also imported by traders, and appeared to have been made in Birmingham. The only ornaments they wore were single rows of large white beads suspended around their necks, and consequently we could barter with them only in cloth.



CROSSING THE JUB.

Before crossing, I had taken leave of my good Afgab guide who had led us all the way from Bari. He started off in the night-time, carrying strings of dried meat and a vessel of water to last him on his long journey, and did not seem in the least afraid of travelling in the dark, armed with spear alone, although he had to pass through a country where there were many lions. He expected to travel forty miles every night, lying concealed in the daytime among the bushes. As he had done so well for me, I loaded him down with presents, and gave him also a letter bearing testimony to his character as a guide, so that he might be useful to future travellers in this country.

Once across the Jub, I felt that the strain I had been under for three months, to keep the caravan together, was removed; there was no more fear now of the Abyssinians, as they had never got so far south, and my men had mostly recovered from the fever, and were too far away to think any more of their homes. We had all settled down contentedly to camp life, my boys singing merrily as they worked, and indulging in all kinds of games and sports during spare moments. I would occasionally allow them to go shooting on their own account, so as to get them accustomed to the rifle, and many of them became fairly good marksmen.

After resting a day, we made a short march of an hour and a half to some villages on the river Dawa,¹ called Warwai. The Dawa runs through a beautiful fertile plain, nearly a mile wide, containing a number of palm-trees of various sorts, as well as a charming variety of other trees and bushes. About its banks are many small

¹ We found the stream to be forty yards wide here, and from three to four and a half feet deep. This was not the rainy season, so I take it that my measurements of the Ganana and Dawa give a fair idea of the average magnitude of the rivers during the year.

fields of durrha and Indian corn. The little villages scattered about these lovely gardens have a very picturesque appearance. I was quite charmed with our camp at Warwai at sunset, a few palms close about our tent forming a striking foreground to a purple sky, with a few distant clouds in it, light as lace, and of a distinct greenish hue.

The fertile valley, with its loamy soil, ends abruptly towards the south in a rough, barren, undulating country, reaching as far as the eye can see, and containing here and there a few outstanding eminences, while to the north there appears to be nothing but dense woods and forests. The forests were fairly alive with birds; but, except the large green bee-eater, they were of the same species I had seen about the Shebeli River. I succeeded in buying two good strong camels, the price being two of my poor animals, and ten pieces of cloth; but this bit of luck was counterbalanced by the discovery that two very important boxes had been soaked during the crossing of the Ganana and their contents destroyed, one of these boxes containing undeveloped plates, while the second held provisions, such as flour and salt. Although Dodson and I had but little European food to last us for the long journey ahead, we knew we should not starve while ground durrha meal was to be procured; but the loss of the photographs was most exasperating, as they illustrated the country and natives about Sheikh Husein; I have to thank Mr. Fred Gillett therefore for the photographs of the Arusa Gallas which appear in the first part of this book. Fortunately my Somali photographs were in a separate box, and were uninjured.

Our next march led us along a narrow path to a place called Uunsi, where many camels and other animals are brought to be watered at the river; and I was rejoiced on

the march to find that none of the boys were lagging behind on account of sickness, as it had been a most depressing sight to see twenty or thirty men dropping down all along the line of march, and praying to be allowed to remain.

CHAPTER XII.

THE GERE GALLAS — FRIGHTFUL HURRICANES — AMUSING NATIVES —
THE GIRLS ARE NOT BASHFUL — INTOXICATED NATIVES — MONKEYS AND
LIONS — CURIOUS FISH — A MOUNTAINOUS COUNTRY — REPORTED LAKE
— SHOOTING WALLER'S GAZELLES — EL MODU — TAME STARLINGS —
I GO ON A SHOOTING-TRIP — OBLIGED TO THROW AWAY LUXURIES —
MY GUN-BEARERS: YUSIF, KARSHA, ADEN AOULE, AND MOGA — DIS-
TRESSING MARCHES TO AIMOLA — WE FRIGHTEN THE NATIVES.

WE were now among the Gere Gallas, a tribe that extends one hundred and fifty miles west of the Ganana. The three sub-divisions are the Gere Morro, nearest the Ganana, the Gere Badi, and to the west the Gere Libin,— all Mohammedans except the Gere Libin, who are atheists. They speak the Galla language, and are as light colored as the Dagodi, resembling these also in their mode of living and dress. They are rich in cattle, camels, sheep, goats, and donkeys, and grow about the banks of the Dawa a little grain.

A frightful windstorm arose after we had arrived at Uunsj, tearing up bushes and loose *débris*, and blinding us with dust. The tents had to be held down by many men, while oryx and zebra skins, camel blankets and bags, were blown far from the camp, and everything was covered with a thick layer of dust. Later a heavy thunderstorm arose, to our great relief, as it promised good food for the camels ahead. I found many ammonites here.¹

¹ The country to the south of here is called Boula, and that to the north-west Gone Taka.

While collecting near the camp, I saw a tiny sun-bird in a mimosa-tree, and fired at it with my collecting-gun, thinking it was a new species. As the bird fluttered to the ground wounded, I was startled by a most ludicrous burst of laughter and clapping of hands on the part of a lot of natives whom I had not noticed before. The poor savages thought I had simply frightened the bird to death! They believed here, as natives of other parts frequently did, that I collected insects, lizards, and scorpions, in order to eat them,—one man bringing me a spider, and smilingly requesting me to eat it.

A lot of them, after standing quietly and gazing at me for a long time, inquired of my boy Abdi what I was doing looking at that one thing in my hand for such a long time; but upon my trying to make them understand that it was a book I was reading, and that this told me stories such as they repeated to each other at night over their fires, they burst into an incredulous laugh. Later on, however, their curiosity got the better of them, for they came shyly around and peered over my back again to see what that wonderful thing, a book, was. The volume in question was nothing more or less than Raper's "Practice of Navigation;" but now I put this aside and drew from a box a picture-book full of illustrations from animal life. The astonishment on the part of my audience was great as they beheld one animal after another colored and drawn as they had been accustomed to see them in nature,—the little children leaving me in terror, while their parents clapped their hands and applauded vociferously.

Savages do not have a great command of language, but express their emotions in pantomime, accompanying each gesture with loud shouts; and so my readers may well imagine how ludicrous the scene was when, finally, I showed the little porcelain doll,—that toy that had in-

fused love into so many savage breasts, from the old Abyssinian general down to the naked Adones about the Jub. I was enjoying a good laugh myself, looking at the natives hugging each other and dancing about in glee, until, finally, most embarrassing questions were asked.

“Have white women such small mouths? Is their hair so like the color of brass? Do they not wear a loin cloth, and have they no hair over their eyes? But certainly they are splendidly fat. And what a beautifully white and pink skin!” “Have you, great white man, such a white skin, like the sun, all over your body?” several dusky females now asked me; and I rolled up my sleeves high to the shoulders, displaying about an inch of my arms that had not been browned by the sun.

“Magnificent!” the ladies cried. But now, like Little Oliver, they wanted more. And, indeed, so inquisitive the gentle maidens were that they came to our tents very early the next morning, in hopes of seeing Dodson or myself in our tubs. Leaving our admiring friends, however, we set out at once after breakfast, marching at first some distance from the Dawa, the path leading over low, stony hills. But at Handudu, where we camped, we again touched the river bank. Here were many villages, and great numbers of camels and cattle, but there were also many poor, wild-looking natives in the woods of dhun palms, who lived entirely by drinking the sap of these trees, and eating the hard fruit. The tops of the palm-trees are cut off, a cup fastened so as to receive the sap as it flows out, and over this a cap of plaited grass is placed as a protection. The sap, which flows in great quantities, ferments in the cups, and forms an intoxicating drink. I found many natives subsisting almost entirely upon these palm-trees, occasionally getting a little change of diet by trapping. They wore little or no clothing whatever, and

all of them, women and children included, had a degraded, half-intoxicated appearance.

I crossed the Dawa with a few of my boys, and after marching a mile came upon the river again, flowing in an opposite direction, which was not astonishing, as African rivers usually curve in a most extraordinary manner; but I was surprised at finding about a dozen naked men and women, thoroughly intoxicated, and indulging in a wild bacchanalian dance, tumbling about and conducting themselves in a most abandoned fashion. Approaching them in as friendly a manner as possible, I tried to get my interpreter to talk to them in Galla; but as soon as they caught sight of my white face they screamed and fled.

Besides the natives, there were everywhere large troops of monkeys, feeding on the fruit of the palm-trees. And occasionally these animals would throw the fruit at us from the tops of trees, aiming so accurately that they hit my boys more than once. Water-buck, giraffes, and lions abounded in this country; but I did not take time to go hunting, although almost every night we heard a lion's roar, and frequently I was aroused by all the camels jumping to their feet at once, and plunging about the zareba, when some king of the forest happened to be near.

Dodson and I caught some curious little fish in the Dawa, with long teeth set well forward on their lower jaws. We remained three days at Handudu, during which time we had several heavy rains. On our last night there my boys became very much excited when the new moon appeared, as it ushered in their period of fasting, according to the teachings of Ramadan;— but as it would be impossible to fast forty days while marching, they contented themselves by resolving to pray a little more frequently than usual.

Our next march (February 22) brought us to Mata

Safaro, where the Dawa makes a great bend toward the north. The scenery changed much, as there were very high hills to the south, and across the river the land rose in a series of steps. It rained sharply for an hour during the march, and when we got to camp we were thoroughly soaked, and shivering with the cold. Dodson and I were saved from a good attack of fever by taking some whiskey immediately after changing our clothes. Whatever teetotalers may believe, I can truthfully state that we were saved many times from dangerous colds by taking a little whiskey at the proper time. Frequently I have come in wet and exhausted, when my cooks could not get hot drinks, such as soup, tea, or coffee, quickly enough, and on such occasions alcohol would be my only safeguard against fever. I consider whiskey and brandy to be quite as important medicines as quinine on an African journey.

As we continued toward the west the land on both sides of the Dawa rose higher and higher. Upon climbing a steep bluff to the south of our line of march, I observed three large groups of mountains about four thousand five hundred feet high,—the most eastern one called Shan, the central group Mt. Koori, and that to the west Mt. Halya; while to the south there were several mountains two thousand to three thousand feet in height. While following along a narrow path, I saw a lion dart into the thick bushes on the other side, and tried to track him; but after getting entangled in the mesh-work of thorny acacias, I was forced to abandon the chase. At one village that we passed I was told that a band of six lions always hunted together, and that they frequently carried off the natives from their huts. We passed through much excellent game country, but it was impossible for me to get a great deal of sport, since we usually made a five or six hours' march

daily, and I had my hands full the rest of the time in attending to my scientific work. When we stopped a day or two, it often happened that there was no game near, as I would endeavor to rest where I could do some trading; and there would be too many people for game to be abundant.

If I had been on a sporting trip, and had stopped to hunt lions where they were most numerous, I could have found a great number. The natives told me there was a small lake lying near the Ganana River, called Hookoo; but I am quite doubtful if the report is true, although I have marked the lake on my map.

On March 1 we marched five hours through a mountainous country, the road leading at one time over stony hills, and affording us beautiful views of the river Dawa, which we could make out for many leagues, pursuing its serpentine course through fine grassy plains, fringed on both sides by forests of palm-trees. About three miles from Hareri the stream formed a pretty little lake less than a mile long, surrounded by hills; and as we passed this lake, ten fine water-buck sprang from the water's edge, and galloped away over the hills, while myriads of aquatic birds started at our approach, and rising high into the air circled round and round above our heads.

For two marches we did not see a sign of a human being until we came upon four Gallas, who of course ran off at first, but were afterwards found by my guide and induced to come to me. They said their village was a short march ahead, and that they belonged to the Gere Libin. Just before camping, five Waller's gazelles appeared in an opening among the bushes; but the noise of the caravan frightened them, and I only managed to get a running shot at a buck a good way off. The animal disappeared at once; and then, to my surprise, after simply making a

circle through the bushes, he came in sight again and stopped only sixty yards from me. The next moment a bullet from my .577 passing through both shoulders killed him instantly.

In the morning we marched three hours along a good path leading directly west, and camped at Yabich, where we found the villages of the Gere Libin of which we had been informed. We were now to bid good-by to the river Dawa, as the natives told me that the country it passed through was very mountainous, and that it would be difficult to take the camels along its shores. There were many tracks of rhinos and lions, but I did not sight any game on the road, on account of the number of people about with their flocks.

Another short march brought us to El Modu, where we were advised to rest for a few days, because we should be obliged to make three long marches before reaching water again. There was good water at El Modu, and excellent food for the camels, and I also found plenty of work to be done in collecting several new and rare species of birds, as well as snakes and plants I had not seen before. On a branch of a tall mimosa-tree, that spread like an umbrella over our tents, was built a pretty round nest, with a tiny opening in the centre, in which we thought one of those beautiful red-breasted starlings, with metallic backs and wings, had laid its eggs; and as we were like cruel schoolboys in collecting eggs, I had the branch partly cut down, so that it hung, with the nest, only a few yards from the front of my tent. But I was disappointed to find no eggs in the nest, but only young birds, too little to be of scientific value. I did not disturb the nest any more, hoping the old birds might come back to their young; and I was not disappointed, for no less than four starlings came to tend the little ones, not seeming in the

least afraid, but perching continually about the nest, so near to me that I could easily have touched them with a stick from where I sat at the table.

Leaving my caravan to rest at El Modu, I started with six boys on a hunting-trip to the Dawa. We tramped two hours along a good road, and then struck off among the bushes to hunt through a deep valley that opened out toward the river. We had just succeeded in climbing down a steep precipice, and reaching the broad river bed that passed through the valley, when my boy Yusif (a stupid fellow I had taken because Karsha was sick) called loudly to me that he saw a beast of some kind. Of course by the time I reached Yusif the animal was far off, and I had just time to perceive that it was a fine specimen of the greater kudu. Disgusted at not having got a shot, I walked ahead for some time, until at last I spied six water-buck far off on the hill, and I started to climb up after them ; but the ground was so rough that I could not help making a little noise and frightening the animals, which ran down a valley and up a hill again on the other side. Here they stood gazing at me two hundred and fifty yards away. The distance was great, but I could not resist having a try at them ; so picking out the largest buck, I took a steady aim and fired at it. Down went the animal to the ground, where he kicked about for some seconds, making me feel so sure that I had killed him that I took my time walking over to where he lay. When I got to within thirty yards of him, however, he suddenly sprang to his feet, and rushed away through the bushes as though untouched, taking me completely by surprise. There was a great pool of blood where he had lain, and as I tracked him I found quantities of blood from his lungs.

Finally, after going half a mile, I got a glimpse of the water-buck walking slowly ahead through the bushes, and

managed to bring him down with another bullet, about forty yards off, when my boys ran up and cut his throat. From what experience I have had, I should say that a moose would never have risen to his feet again after receiving such a wound in the chest as I had given the water-buck. After loading the meat of the water-buck on my donkeys, I pushed down toward the river; but I had not gone far before I saw a wart-hog feeding about eighty yards away. As luck would have it, one of my donkeys commenced to bray just at this instant, and off went the pig. I could only get a snap-shot at him, but as the report of my rifle rang out the pig made a complete summersault, and then lay dead as a stone, having been hit by a lucky ball in the neck. I saw another lot of water-buck in the distance when we reached the river; but it was too late to stop then, as we had to build a little zareba before dark.

What a night I had! It was too hot to draw my blanket over my face, and if I threw it off, I was devoured by mosquitoes; so I finally had to sit by the fire, where my boys were huddled together in the thick smoke. Somalis as a rule have not the strong odor of negroes, but there were two of my boys that night who were very "powerful," as the cowboys say.

Starting out the next morning, after a sleepless night, I hunted through groves of palm-trees along the river bank, and soon had the pleasure of seeing four water-buck walking across the grassy plain, directly toward me. I hid behind a tree; but, just as I did so, two natives appeared a long way behind the water-buck. The animals, started by the natives, came on now on a dead run directly toward me. I remained almost breathless until the animals got to within a few yards of me, when a little whistle caused them to come to a halt, and I had simply to pick out the best animal, and knock him over dead with the first shot.

I could probably have killed two more before they could get away, but I refrained from shooting, as we did not need the meat. Exchanging my rifle for a shot-gun, so that I might collect some birds, I started back to the caravan.

In one little clump of bushes I noticed some curious birds, and crept up cautiously to get a better view of them. I had gotten so close that I could almost touch the bushes, when suddenly there was a growl, and out sprang a fine leopard, only a few feet away. I must confess to being startled by the animal, as my gun was not loaded properly for such big game. Seeing the leopard bound into another thicket, where he would probably remain, I called my boys together, and had them try to drive the animal, while I took my stand on one side of the bushes, and waited with my .577 rifle. Soon I heard my Somalis coming gradually towards me, striking the bushes about with their sticks, and my excitement rose higher and higher. Is it possible, I thought, that the leopard has escaped us, after the boys had almost reached my side of the bushes? But no; suddenly, like a flash of lightning, something yellow shot through the air, and landed directly at my feet. There was only one quick snarl, and the next instant I saw the leopard bounding away through the grass in the opposite direction. The whole thing was done so quickly that I had no time to take aim, but could only take a snap-shot at the animal's back as it bounded through the grass, scoring a good miss. I thought the leopard must have intended to seize me when he first bounded from the bushes, but changed his mind, as he almost touched my feet. I hunted him for some time now, but could see no more of him.

On reaching the caravan, I found everything in order, but heard rather bad news as to the country ahead. Two guides, who had agreed to go with me, stated that three

days' march from El Modu a small pool of water was usually to be found, but that this sometimes dried up, and that if we did not find water in it, we should be obliged to go on for two days more. I had much reason to fear this waterless tract of country, as the camels were in such a poor condition that they were unfit for taking long marches and carrying heavy loads of water. Still, I was obliged to have the water barrels filled to their utmost capacity, and go ahead.

We started out on March 6, and had a long, weary march of eight hours, the majority of the camels reaching camp very much fagged out, and two of them having to be left behind. The country was very mountainous, and covered with dense, bushy jungles, where giraffes are to be found in great numbers. I made a change now among my gun-bearers and Dodson's boys. Yusif, one of my gun-bearers, was a very willing fellow, but if I told him to do one thing, he would surely do just the opposite, and perhaps go miles to accomplish his object. He had had a lot of experience in Africa with Captain Lugard and others, but he had no brains. He understood enough, however, to collect insects, so I gave him a sweep-net and killing-bottle, and told him he should now become a great naturalist. Yusif was also to look after Dodson's tent, and help my cook with his dishes. I then selected two boys, Karsha and Aden Auole, to act as my gun-bearers along with my good servant Abdi Farrah.

Karsha was a well-known character in African explorations, having been with Count Teleki when Lake Rudolf was discovered, and having served also under Mr. Astor Chanler, remaining faithful to that gentleman after almost all his men had deserted. Aden Auole was another good man, a little past middle age, and the best Skinner I have seen, excluding professionals. Besides Yusif, I gave

Dodson one of the most intelligent boys in camp, by name Moga, to assist him in collecting. Moga had been a servant to an officer on a French man-of-war, and had seen much of the world. A more willing fellow, and a more intelligent Somali, I never saw. But poor Moga! he was never to have the opportunity of seeing his pretty little wife and children in Aden again, as he had but a month more in which to enjoy life.

The next day we had another long march of nearly nine hours, reaching a little opening in the bushes where we could camp at two o'clock. I lost five camels in this march, one of them serving as food for us all; and to increase our difficulties, many of the men had a relapse of their fevers, and had to be helped or carried along. In order to lighten the camels, I was obliged to throw away seven boxes, five of them containing wine and tinned fruit; a heart-rending thing to do, but absolutely necessary. At half-past three in the morning, two hours before daybreak, we were off again, every one in the gloomiest spirits. I was much afraid of losing half my camels, but there was no help for it. Luckily the day turned out cloudy, which was a blessing both for camels and men. We plodded on through a beautiful mountainous district, the camels doing better than I expected, although the loads had to be constantly changed from one tired beast to another. My good cow Dinko stopped giving milk, as she could get no water; but still she would always lead the caravan. The milch camel Gaut that Wal-da-Gubbra had given us, however, did not mind the march at all. We were obliged to be very careful of our water, Dodson and I together having to content ourselves with one small vegetable tin of the precious fluid to wash in each twenty-four hours. The great question was, "Shall we reach the pond, and shall we find water in it to-morrow? If not, what privations may

be in store for all of us?" Fortunately, however, we had risen two thousand feet from the Dawa valley, the temperature being correspondingly lower, and the air more refreshing, so that my sick boys were feeling much better.

The next morning we started in the dark again, hoping soon to reach the pond; but we were forced to push the caravan ahead rapidly, as there was such an uncertainty of our finding this water. Three hours passed, and we were told that the pond lay just over the hill that rose ahead of us; an hour more and we had climbed the hill, and then the water was just as far away! We marched six hours fast, the guides always telling me that the water was just beyond the next hill. Finally we did come to the pond, but, alas, there was only mud at the bottom! Our position had certainly become serious, but we had to keep straight on.

I was marching ahead with my gun-bearers, when, to my relief, I saw six natives drawing water from some holes. My boys could not help shouting for joy, frightening the poor natives out of their wits. There were four men and two women at the wells, with their camels; and when the women saw us, instead of running away, they rushed frantically up to us, and with tears and sobs threw their arms around myself and the boys, and implored us not to take away their five camels. Their fears were soon quieted, however, sufficiently for them to give me some information about the wells. They had exhausted all the water in the holes, but they said if we dug we might find enough for a drink all around for the men; so I pitched camp, and soon had a gang of men working hard with pickaxes and shovels, spears and hands, with the result that we collected, in all, eight buckets of water,— just enough for my eighty boys, but not a drop for the mules, donkeys, or camels. The next morning we were obliged to march again. The

country continued mountainous and densely wooded, but we soon began to pass many tracks of elephants, a sign that water was probably not far off. To our joy it now began to rain hard, and after a six hours' march we found some water-holes that were quite flooded.

Although thoroughly soaked and cold, we never welcomed rain more than we did that day. At one time on the march, when I was a long way ahead of the caravan, trying to get a shot at a rhinoceros, I noticed one of my guides from El Modu talking eagerly to three natives. Anxious to find out what I could from these people, I walked towards them, but all three fled. Evidently my guide too refused to trust us, and had told the natives to run ahead and tell their people we were coming to loot them. This was very disappointing, for when we came to Aimola, which was the plateau on which we found water, there was not a native to be seen, although there were many footprints.

CHAPTER XIII.

I AM OBLIGED TO SEIZE NATIVE CAMELS — ELEPHANT SHOOTING — WALKER'S GAZELLES — THE NATIVES ARE PLEASED — THE SAKUYU BORAN — THE BORAN AND THEIR KING, ABOFILATO — ELEPHANTS AT CLOSE QUARTERS — CHARGED BY A RHINOCEROS — IN THE COUNTRY OF THE BORAN.

A FEW minutes after we had pitched camp, one of my boys rushed to me with the news that there was a leopard in the bushes close by. I started out at once, and sure enough, there was the leopard walking slowly away from a bush not a hundred yards from the camp. I had to fire quickly, but my bullet struck the beast in the abdomen. He fell, but picked himself up at once, and with a loud growl darted off into the bushes, only to fall dead a short distance away. It would have been impossible to move from Aimola without having fresh camels, as twelve had died during the last four marches, and the rest were completely worn out. During the night, therefore, I sent twenty men toward the Dawa to track the Gere Libin people, telling Salan, whom I had put in command, to be as friendly as he could toward the natives, but that if they refused to come willingly and trade with us, he should capture any of their animals he could find, and so force them to come to terms. Later in the morning Dodson and I made a tour to the southwest, toward the foot of a long range of mountains that lay just on the borders of the Boran country. We soon came upon a large bull elephant asleep under a tree. I got within thirty yards of

the animal, behind a bush, and fired at him with my eight-bore, the bullet striking where I had aimed, but the beast did not seem to mind the shock at all; he simply threw up his ears, and commenced to move slowly away. Again I fired at him, hitting him this time also in the chest; but he only walked off a little faster.

We followed him up and shot at him several times, Dodson using the .577 and I my eight-bore, pursuing him for a long distance till we saw many footprints of natives, and I concluded that it would be too dangerous for us to go on, as we only had six rifles with us. I heard nothing more about that elephant until I had left the country, when some natives told me that the beast had been found dead a long march from where I had shot it, and that the tusks had been stolen. On my way back to camp I caught sight of a Waller's gazelle, and after stalking for some time got a running shot at fifty yards, killing the beast instantly with a shot between the shoulders.

I was always pleased to get a Waller's gazelle, as these animals afford excellent sport, having such a very narrow body that they present but a small mark to shoot at. Their solid reddish-brown color renders them almost invisible, and at the same time they are exceedingly shy, and almost always keep to the bushes.

The next morning the twenty men I had sent out with Salan came marching along, singing at the top of their voices, and driving a great drove of fine camels before them. They also had with them three prisoners. Salan told me he had followed one of the guides the day before till he came to a lot of villages from which the animals had been driven away, and that he had then tracked these animals all night, finally coming upon a herd of the finest lot of camels he had ever seen. There were a good many natives with the camels, with whom Salan tried to make

friends, but he could not do anything with them ; so making a sudden rush, my boys succeeded in catching three powerful old chiefs, the Somalis not firing a single shot, as I had given them strict orders not to do so unless the natives attacked them.

I had a long talk with the three old chiefs, which ended by my sending one of them away to tell his people that if they would all come to the camp they could have their camels back, but they must trade with me. I pointed out the number of boxes and bundles of trading goods that I had with me, and the miserable condition in which my camels were, so that when the old man left he seemed to understand my condition, and smilingly said he would do all he could for us, and that he believed now that I was not the same sort of a man as the white men who had gone up the Ganana.

In the afternoon about a hundred natives came to the camp, bringing their wives and children along to show their good will. I gave them back their camels, and now those that wished to do so began to trade briskly. I found these Gere Libin to be principally atheists, though a few of them said they believed in Wak. They owned many large villages about the Dawa, where they grow a little grain, but their principal occupation is raising camels, cattle, and sheep.¹

Each village has its own chief, who is quite independent of any more powerful king, being selected usually on account of his wealth and intelligence; but he dare not act before consulting with all the old men of the village. Youths have no say whatever in state affairs, being regarded as absolutely irresponsible until past thirty.

¹ Directly south of Aimola is a country and people called Sakuyu; to the north the Gere Libin extend some sixty miles, and are divided into the following "cashes," or clusters of villages, beginning at Aimola: the Kolula, Rer Mogufa, Wara Meda, and the Kal Wena.

It was weary work for the next three days trading with these Gere Libin, several hours often being required to conclude a single bargain. The natives wanted enormous prices for their animals, the chief articles they desired being cloth and brass wire. On the 14th of March several Boran came to the camp, the first we had seen. They brought much coffee with them, which they gave to us as a present, and appeared to regard us in a very friendly light. Of a light copper color, they resembled the Abyssinians very much in their long faces, broad foreheads, and generally intelligent cast of features, as well as in their height and good muscular development. Those that visited us at Aimola belonged to the Sakuyu tribe, and wore their heads shaved, with the exception of a little tuft of hair which they left in the middle of their head and twisted into a tiny little pigtail. The women wore a short apron and bib of cloth or leather, while the men clothed themselves in a pair of very loose short trousers and a cloak thrown over the shoulders, the material for these garments coming from Konso and Amara. The arms of people of both sexes were covered with brass, copper, and ivory bracelets, and many necklaces of beads were worn.

Every man who could afford it wore also a huge brass ring on his index finger, made into the form of a large circular disk on top, that projected nearly half an inch from the finger. One man brought a bag containing thirty pounds of shelled coffee beans, which he sold at the low price of one piece of cloth. They said they got the coffee from the Jan Jams, a people living in a very cold mountainous country far to the northwest. Formerly the Boran were divided up into many different tribes, but now they are all united under one powerful king named Abofilato, who is the hereditary chief of Karayu Boran, these Karayu Boran having subdued their neighbors and

formed themselves into a strong central government, in which at present nothing but harmony prevails. All the Boran are worshippers of Wak, believing him to be an all-powerful man living high up in the heavens, working for their good or evil; but they have no idea of a future existence. Whenever they desired anything especially, they would sacrifice some animal to Wak under a tree; and often on ordinary occasions when they slaughtered an ox or a sheep they called upon Wak to help them.

The men usually had a plurality of wives, but were above the average savage in their ideas of morality. For years the Somalis from the coast towns near the mouth of the Jub have been accustomed to trade with the Boran for ivory, and it is from these traders that many of the reports concerning the Boran and their country have reached the ears of European residents on the coast. The Rev. Mr. Wakefield, who was for many years a missionary at Kismayo, collected a mass of material, but the majority of the reports furnished him were false.

The Boran speak the same language as the Arusa Gallas, but differ widely in the pronunciation of some of their words from the Gallas living about the Tana River.

We rested ten days at Aimola, during which time I bought twenty-two good camels, eight oxen, and some sheep and goats, paying out for these one hundred and twenty pieces of cloth, one hundred and forty pounds of mixed beads, seventy pounds of brass wire, and eight of my poorest camels. My boys had much work training the new camels to carry loads; but the Somalis, as I have said, are the best camel-men in the world, so it was not long before all the animals were thoroughly mastered. The water-holes of Aimola are situated on a plateau three thousand feet above the sea, called the Budda Ardesa, where the nights are always cool and the days not uncomfortably hot.

the average temperature for the twenty-four hours being seventy-three degrees Fahrenheit. All the boys got rid of their fever in this healthy spot, and Dodson and I never felt better in our lives. There were many elephants, rhinoceroses, and giraffes about, so that I managed to get considerable shooting. I followed the tracks of some elephants for a long time, and finally came upon them asleep under



THREE OF THE AUTHOR'S BOYS CUTTING OUT TUSKS.

some tall sycamores. Creeping quite close behind some bushes, I fired at one just behind the shoulder with my eight-bore, and was rejoiced to see him tumble over quite dead. As I fired, however, three elephants came directly toward the bush where I was concealed, trumpeting loudly.

There was no way of escaping to another bush, so I remained perfectly quiet while the animals passed within a few feet of me. It was a most uncomfortable moment for me, as I could not tell whether the animals would come through the bush after me or not; but evidently they were not intending to charge, having chosen accidentally to

come my way in their flight. Almost every night rhinoceroses and elephants would pass close to the camp, but I did not go after them in the dark. Only one morning did a rhinoceros come close enough to the camp for me to get a shot. My bullet struck the beast in the back as he was puffing and tearing up the ground about fifty yards away, evidently objecting to our having invaded his country; but the wound was not enough to finish him, for he turned aside and ran off into the bushes. I went out of the camp, and followed his blood trail a short distance, until suddenly I heard what sounded like a steam-engine coming for me from behind the bush; but luckily the beast was too severely wounded to run fast, so that I had time to put up my rifle and fire before he reached me. I hit him this time in the shoulder, causing him to fall on his knees, and with the second barrel rolled him over on his side.

A couple of Gallas who had been in the camp over night, and who had followed me in my search for the wounded rhinoceros, now rushed up, and proceeded to fill themselves with the blood that poured from spear wounds they made in the animal's side; I think they must have drunk a gallon apiece.

We left Aimola on the 19th of March, and proceeded in a westerly direction toward the lovely valley of San Kural in the country of the Boran. The Gere Gallas had been most agreeably surprised at our not having looted them, and as we took leave of them they showed their pleasure by broad grins for every one. The valley of San Kural is very picturesque with its high mountains and luxurious vegetation, and giant boulders of granite superimposed one upon the other in the most curious fashion.

After our first march from Aimola we camped near some villages a little to the west of the wells of San Kural. Here we did much trading with the Boran, so that I could

count seventy-eight good camels in my caravan when we left the next morning. The country continued very interesting, with its bold hills of jagged rocks a mile or two apart. Lodged all about the country were single solid rocks, worn into spheres, while the hills looked like great masses of these rocky spheres piled in chaotic heaps on one another, and balanced by perpendicular columns of reddish rock that projected high in all directions.

CHAPTER XIV.

THE BEAUTIES OF EL DERE — ATTEMPTED MURDER — THE GABBRA AND HIS OUTFIT — DIFFICULT MARCHING — MY CARAVAN AT NIGHT — HAWAYI SOMALIS AND GABBRA — ANCIENT WELLS AT LE — THE NATIVES BEGIN TO ACT SUSPICIOUSLY — MORE REMARKABLE WELLS — SHOOTING GAZELLES IN A THUNDERSTORM — KNOCKED INSENSIBLE BY LIGHTNING — IN DANGER FROM NATIVES.

ON March 22 we made a five hours' march, going straight into a tiny horseshoe-shaped valley, surrounded, except at its very narrow entrance, by tall mountain walls over five thousand feet high. The beauty of this little valley was most striking, with its flowering plants and luxuriant bushes and vines. Under a big rock at the farther extremity of this cul-de-sac ran a spring of cold, clear water, called El Dere. Many trees of boxwood grew about the spring, the trunks of some of them being three feet in diameter, and among the rocks were many ferns and mosses; so that, as I drank a hatful of the cold, pure water, I imagined myself out for a day's trout-fishing in the mountains of Pennsylvania. There were a good many villages of Boran near El Dere, but some of these belonged to the Gabbra, or low-caste Boran, who use bows and poisoned arrows, and who are regarded as so far removed from their superiors that they are not allowed to marry outside of their own tribe, although their villages are found scattered all through Abofilato's dominions. It was while engaged in shooting guinea-fowl that I noticed one of these Gabbra secreted behind a bush, and aiming with his bow and arrow

at one of my camel-boys. I immediately fired close over his head, causing him to drop his weapon and cry out for mercy; and on going up to the rascal, I found his quiver full of freshly poisoned arrows. But why he wanted to shoot my boy I could not make out.



THE GABBRA'S OUTFIT.

Attached to his quiver was a pouch made of soft, very well tanned leather, containing a characteristic outfit of articles necessary to the life of a native, including a little pair of forceps for removing thorns, two sticks for making a fire, another stick which served as a toothbrush, a wooden comb with three prongs, a bit of strong-smelling gum, used as scent, and last but not least, a little bag of tobacco, mixed with ashes, for chewing. After having his weapons and outfit taken from him, the would-be murderer was given sharp cuts with a stick, and then sent away,

admonished never to be seen near the camp, on pain of death.

The next day we had to retrace our steps a little way to get out of the valley of El Dere, and then march straight to the north. It was misty when we started, but soon a heavy downpour of rain commenced, and lasted all day, thoroughly soaking the loads. The path, which led through a narrow gorge between two lofty mountains, with precipitous sides, called Mt. Erer, and then across a flat and bushy plain to the base of a long mountain chain, was now converted into a small torrent, and the camels were continually falling down in the slippery mud. We had to keep moving, as we could not camp in the water, but the rain never ceased. Finally, after eight hours of hard labor, we found a little sloping ground, where the water drained off quickly, and here we halted. Tired and shivering as we were, we could get nothing to eat for a long time, as it was impossible to start a fire; but there was plenty of water to be had by collecting the rain as it fell.

The path now gradually rose, and curved around the sides of a high mountain, the view being magnificent as we looked south, far down a broad valley surrounded by rugged mountains and covered by forest. I had managed to buy several more camels, oxen, and donkeys at El Dere, so that the camp at night seemed once more well filled. My diary tells me: "One hundred camels growl and snort, twelve bullocks bellow, thirteen donkeys and three mules bray and neigh, and forty goats and sheep make what noise they can; the men sing, yell, and dispute, and now and then a rifle is fired to warn passing creatures not to treat the camp with contempt. Such is night in camp; but yet I am so used to it that the noise does not affect my rest a little bit."

On March 26 we found ourselves at some perennial wells

called Garca, in a country very sparsely inhabited, and in which there was little game except giraffes and Waller's gazelles. But the next march brought us to a thickly populated district about Mt. Jima, where there were many Gabbra villages, as well as settlements of Hawayi Somalis. These Hawayi Somalis had emigrated from Bardera within the last sixteen years, and were now under the protection of King Abofilato.

The two Boran guides were not leading us by the best paths, I afterwards found out, but persisted in taking us first north, and then south, through the densest sort of jungle. From the insolent manner in which some of the natives treated us, and the strange behavior of my guides, I soon began to suspect there was something wrong. I frequently found the tracks of many men on ponies, who had gone before us, and my boys would occasionally see natives spying at us from behind some bush. Still we could find no reason to be alarmed, as in most places in the Boran country the natives had been friendly. Two marches from Jima brought us to a rather more open country, in which there were some curious wells called Le. These wells, which lie in a broad meadow, are very remarkable, being approached by a winding passage a hundred yards long, which descends gradually to the bottom of a large round chamber, fifty feet deep, and opening straight to the top. The passageway and the chamber itself have both been cut through solid rock. In the latter are a series of basins for receiving the water as it is drawn up from a narrow opening dug another forty feet below the bottom of the chamber. Rough ladders made of sticks, and whipped together by leather thongs, lead down to the water.

Although I saw no inscriptions, or relics of any kind that might lead me to suppose these wells had been made by the Egyptians, their immense size, and the fact of their

being cut through rock, impressed me with the belief that they were dug by these ancient colonists.

After two more short marches we came to some Boran villages called Goff, lying in a bushy, undulating plain, where there were wells even more extensive than those at Le, the passage being longer, and descending to sixty feet below the surface. I managed to buy a few sheep, but the natives did not impress me as being very peaceably inclined. The country now changed considerably for the better, becoming more open, and covered with long luxuriant grass.

Another tramp of about five hours brought us to a plain a mile square, in which there were several more of the curious wells above described. Several natives on horseback kept moving about the plain, but would not approach, and many more could be seen spying at us from among the bushes. After pitching camp and getting a bite to eat, I started out with Karsha to try for some curious looking gazelles which were grazing a long way off, and which I imagined belonged to a new species.

I only had a hard time for nothing, and was very nearly killed. The gazelles were the wildest I ever saw, and would not let me get within two hundred yards of them at first.

It began to rain heavily, but I was so eager to get one of the strange animals that I kept on stalking and stalking. The lightning flashed all about me, and the wind and rain obscured the view. I could now just see the white rumps of the gazelles, moving slowly, not far off. Karsha followed silently. The elements seemed to break forth in vengeance upon the earth. But my blood was aroused, and a gazelle I was determined on shooting, to compensate for my soaking. What was that! A sheet of lightning almost upon us, that blinded us for the moment. Another



THE WELLS OF LE.

crack!— Bang! Two light spots before my eyes, a splitting pain darting through my head that seemed to crack my skull in two, and all was over. I do not know how long the interval was, but after a time I began to be aware of my existence, and found that I could actually move my head, and open my eyes and look about me. What was the situation? I commenced gradually and anxiously to ask myself, as I felt a tingling and weakness in all my nerves.

There was my rifle lying ten feet in front of me, and I was prostrate on the ground. I had actually been knocked senseless by a passing flash of lightning, and now I was awaking to the fact that I was not in the least hurt,— only flattened out in the most sudden and ignominious fashion, with my face in a mudpuddle. Where was Karsha? I turned my head, and there he was, flat on his face, with hands outstretched in the same direction as myself. I called several times to him before he finally lifted up his head. Somehow I could not resist laughing aloud, his face wore such a pitiable expression. My laughing aroused him, and gave him some idea of his being alive. But now came forth such a pitiable flow of “Alis!” “Mahomets!” and frantic prayers, that I was on my feet in a moment, forgetting my narrow escape from death in the amusement Karsha caused me. I patted him laughingly on the back as he gradually came to life, and then got him to pick up his gun and start off with me once more. Now the serious part of the affair came up before me, and I could not throw off a peculiar nervous, weak feeling. I had a headache,— of that there was no doubt; and the same elements that had just shown me how small I was were still raging about me. There were the gazelles, where I had last seen them, barely visible, a hundred and fifty yards away.

I was about to fire, when I perceived that both barrels of my rifle were plugged with mud. It took some time to clear the barrels, Karsha mentioning something about "home, sweet home," the whole time. Walking up now to within forty yards of the gazelles, I took as steady aim as I could at one of the animals and fired, and had the satisfaction of seeing him fall over in the mud. But what was my disappointment when I rushed up and found that the animal that had given me so much trouble was a Thompson's gazelle, and nothing new at all! I was now only too glad to listen to Karsha's pleadings, and made straight for camp, which we reached without further mishap.

We remained at this spot, Edgehr, two days more, partly on account of the heavy rains, and partly to see if we could not make friends with the natives.

On the second day I took Karsha and another boy with me to try for some more Thompson's gazelles; but the animals were so shy that they led me a long chase. I saw a fine buck walking slowly along, five hundred yards from me, and after some time managed to stalk to within a hundred yards of him; but the beast suddenly caught sight of me, and was off, the two shots I fired not taking effect. My hunting ardor was thoroughly aroused, and I kept on and on after the same beast till I was much farther from the camp than I had anticipated, when I finally managed to get another shot at the "hiddi," as the Gallas call the animals.

The gazelle was standing a hundred and fifty yards off when I fired, but I heard a distinct "plunk" as the bullet struck him, and down dropped my buck, to my great satisfaction, as he had given me such a long chase: and a fine specimen he was, standing thirty-six inches at the shoulder, and with horns twenty-four inches in length. Again I was to

have a little bit of excitement I had not expected, as upon starting back to camp I perceived crowds of natives coming from all directions to a rendezvous. We had only two rifles with us, and certainly felt most uncomfortable when we saw a body of about a hundred men, mounted on ponies, emerge from the bushes close to us. There was no mistaking the purpose of the natives in assembling here, as many of them wore ostrich feathers in their hair, a sure sign of war. We walked on as though quite unconcerned, but it seemed to take us an endless time to reach camp, feeling almost sure that the next instant the natives would finish us.

As I look back upon that time, I am amazed that the natives did not attack us. They evidently thought they had better concentrate their forces more before they began their war. When I reached camp with my two boys, I was surprised to find several Boran seated in a friendly manner about my tent, pretending that they were not preparing to fight us, but that they were going to make war upon the Rendile,—a tribe living to the south. I could scarcely believe them, however, but gave immediate orders to have all the camels brought close to camp, and a strict guard to be kept. One Boran remained in camp till the next morning to guide us on our way; but, nevertheless, I had twenty sentries on guard all night.

The next day we marched nine hours through a very bushy country, keeping the caravan as close together as possible. Our Boran guide acknowledged that we had travelled peacefully through the country so far, and protested that his people would not think of attacking us, and several little bands of natives we met along the road also acted in such a friendly way that we began to feel more at our ease. We did not find any water, but camped in an opening among the bushes, fortunately having provided for

an emergency by carrying enough water to last us over night, although our guide had assured us we should reach water that morning. But now we were in the uncomfortable position of not knowing when we should find the next water, as we could not trust the guide. I will quote from my diary for the next few days.

CHAPTER XV.

THE BORAN KILL ONE OF MY BOYS AND WOUND ANOTHER — ELMI AVENGED — AN EXTINCT VOLCANO — IN DANGER FROM ABOFILATO'S ARMY — EXCITING NIGHTS — THE BATTLE — MOGA KILLED — THE BORAN SUE FOR PEACE.

“ **A**PRIL 6. After a two hours' march we came to a plain which was fairly free from bushes, and where we were rejoiced to find several of those remarkable wells such as we had first met with at Le. Just after lunch, when everything was apparently going well, I was startled by a boy's piercing screams. My boys made a rush from the camp toward the place from which the sounds proceeded; they were so frantic that it was all I could do to hold enough men to guard the camp. As soon as I had got the camp properly guarded, I grabbed a few medical appliances, and rushed to the place where it was now reported that one of my boys had been wounded. Sure enough, there was my good boy Isman badly cut up by spears. He had received two wounds in the back that laid bare the ribs, — but luckily had not perforated his lungs, — and also several wounds in other places.

“ I hastened to stop the hemorrhage from his wounds, and while thus engaged I was shouted to that one of my men, Elmi, had been killed. Poor Elmi lay dead behind a bush, horribly mutilated, — his intestines scattered about, and a part of him carried away as a trophy by his murderers. Isman told me, after he had sufficiently recovered

from his shock, that he had been surprised by three Boran, who sprang from behind a bush, too close for him to shoot, and that he had then fled. The Boran, however, caught up to him and speared him; but before they had given him the finishing blows they were frightened off by my men. Elmi must have been asleep when speared, or else he would have fired or shouted. On looking around for my Boran guide, I found he had disappeared. This guide had told me that he did not know the country ahead, so as soon as we camped I sent two parties of six men each in opposite directions to hunt for natives to guide us.

"We were now, consequently, much alarmed for their safety. I sent Karsha, with two other boys, to see if he could find the three natives who had killed Elmi. It was not long before I heard a shot, followed soon after by a triumphant shout from Karsha, as he came along bearing poor Elmi's bloody shirts. Karsha had seen three natives crossing an open space among the bushes, and after creeping near, recognized the cloth that one of them was swinging around above his head as one which belonged to Elmi. He had then fired, dropping his man stone dead. We were all delighted to hear that Elmi was avenged, but were still more pleased to see both parties of six men I had sent out return to camp safe and sound. They had secured two natives at a village called Gorilla, whom they brought to camp. There is war in the air, and we are making all the preparations we can to resist the attack.

"*April 7.* Plenty of excitement and labor. We marched eight hours (thirteen miles N. N. W.) through a bushy country, till we reached the open plain of a valley fifteen miles wide, and in the middle of which was a curious extinct volcano, with a deep crater in it. We pitched camp as soon as we had emerged from the dense bush,

but what a stir there was immediately! Bang — bang — went a few rifles that were guarding the camels. There was a rush for defence. Boran all around, — many mounted and many on foot! Large troops of cavalry were rushing about, and an attack seemed imminent. The natives my men had fired on were trying to drive away the camels, but ran off after the first volley. The afternoon has been one constant strain. Dodson and I did not have time to eat from 6 A. M. to 5 P. M., when we managed to make a cold, hasty meal. Large forces of the enemy have been prowling about continually. This war against Abofilato's forces is a most serious affair for us. There are between two and three thousand men in the field, with more than a thousand ponies. My boys are behaving splendidly, although they have good right to fear that they may never see the light of another day. I have just sent up two rockets. There will be an attack to-night, very probably, so every one of us will remain on guard the whole time. This affair is most disappointing, as I had hoped to make friends with the Boran.

“April 8. What a day this has been for us, and how thankful we are that our blood is not being used to dye the spears and shields of King Abofilato's savage warriors, — except that of poor Moga!

“I have had scarcely any rest for three days, and yet I cannot sleep until I have written of the events of this stormy day. Sleep! not to be thought of while these savage hosts might even now be planning another attack under cover of night.

“A few stars shone in the early part of last night, but later, rain and darkness combined to make our position uncomfortable and dangerous in the extreme. Soaked to the skin, and shivering from the cold, we could never for an instant relinquish our sharp vigil.

“ But what could we have seen to shoot at had the Boran attacked us then? Bang would go a rifle. What was that — a Boran, a fox, or a hyena — that my sentinel fired at? Now peace would reign for a few minutes, until another rustling in the grass was heard, followed by the reports of two or three rifles. So it went on all night; rifles fired at intervals of every ten minutes, either at some spot from which noises proceeded, or else into the air to warn the enemy that we were on guard. At last a dull gray light appeared on the horizon, and what an unspeakable relief it was to be able to see. Yes, now we could make out our enemy, and we should at least be able to make a good fight for our lives, even if we were eventually overwhelmed by numbers. But how small our little body of men appeared in contrast to the great masses of savages the morning light disclosed scattered over valley and hilltops!

“ We were obliged to march on account of lack of water. But I first had a little breakfast, while my boys prayed to Mohammed; and although Dodson and I did not follow their example, it is certain that I never in my life felt more in sympathy than I did this morning with the religious feeling that led my boys to get on their knees and chant their long supplications to the Invisible. And now, with everything arranged, we started on our dangerous journey. I led the column, with Dodson and twenty-five boys spread out in line abreast, while Haji Idris, with twenty-five more men, brought up the rear, the camels, oxen, and mules being massed together in the centre and guided by the remaining Somalis. At first the path led across the open plain and past the circle of low peaks that I had at first supposed surrounded a lake.

“ The plain gradually rose to these peaks, and as we approached, the ground became strewn with lava, but the crater was not filled with water; on the contrary, we could

look down its yawning mouth to a depth of seven hundred feet. The exit of the lava stream crossed my line of march, and except at this spot the crater was surrounded by a wall of jagged rock, thrown into peaks two hundred to three hundred feet above the grassy slopes that led up the mountain. The opening was three quarters of a mile wide and most symmetrical, the barren rocky walls extending vertically to the bottom, in which was a salt-pan, and a small pool of salt water.¹ I was sorry not to have time to examine this mountain more carefully, but the natives were bent on war, and I had to keep a constant watch over my men and caravan. Haji Idris and the old guide captured at Gorilla approached one band of horsemen near enough to call to them, but the natives only laughed at our friendly protestations. Slowly we marched down. It began to rain. Again and again we came to bushy places where there was the greatest difficulty in getting the camels ahead, and at the same time in keeping a proper compactness and guard. It was in these bushy places that we expected an attack, as it was the worst position for us. The rain now fell in torrents and the difficulties increased, as the path became a stream of water with slippery sides. The King's army kept following, and every now and then bands of horsemen approached as near as one hundred yards.

"After travelling some distance, we passed a second curious group of rocky peaks, even higher than those of Mt. Sogida, and which I believed marked another crater; and beyond this we managed to hold a parley with a Boran, who came to us bearing a bunch of grass as a sign of peace. The parley resulted in promises of peace on both sides, the Boran receiving a present of a piece of cloth and a goat

¹ I afterwards learned that this crater, which the natives called Sogida, afforded the only salt to be found in this part of the country, and that the Boran collected it in great quantities.

as evidence of our good will, and leaving behind his spear and shield when he rejoined his comrades. The Boran now sent another man to guide us, saying they had given up the idea of war. Only now and then, after this, could we see a Boran on a pony watching us. The guide showed us a place to camp which rather raised my suspicions, as it was in the dense bushes ; but finally, after eight hours on the road, we found a spot which was fairly open for two hundred yards, and in the centre of this we halted. The boys started at once making a zareba, but this was poor defence, as there were no thorn-bushes to be had.

“ The tents were just up and the zareba about finished when shouts made me aware that a troop of cavalry was approaching. We called to them to stop, whereupon one of them came forward as though to speak to us ; but now a whole force of cavalry was just emerging from the bushes. Hastily the camels were got into the zareba, and then the mules and cattle. We were refraining from shooting as long as possible, but before the last bullock’s tail passed into the zareba there were warriors on foot rushing from behind every bush on us. The bushes seemed to grow warriors. Then the firing began. There was a stampede of the cattle, and the mules followed out of the zareba and away. There was time now only to fight, and fight hard. The natives were thronging upon us. I fired a few loads of S. S. G. shot upon a body of cavalry, and then took my Winchester, aiming at those who were farthest away, knowing that my men could better attend to the near ones. Several horses fell, and a general rush ensued on the part of the cavalry to get away.

“ The firing was hot, and down went warriors, one on top of another. They held up their shields to protect themselves, and thus offered splendid marks for the rifles. On they came for some minutes, and a few got within ten

yards of the zareba. But the Boran had made a great mistake; for instead of waiting until their whole force had assembled, and they could make a united attack upon us, those youths who had never before killed a man, and were impatient to get their trophies, rushed recklessly to the front. They were now obliged to retreat to the main body of their comrades, and there was a cessation of hostilities for a few minutes. But plucking up their courage again, the whole army of Boran, *en masse*, soon made a wild rush upon our camp, brandishing their spears, and dancing as they charged.

“ Fortunately they came from one direction, and I could concentrate my boys to the best advantage at that part of the zareba at which the charge was aimed. The punishment the natives received was terrible; but still they came on, regardless of those that were falling about them, and of the din of the musketry. The smoke soon became so thick we could hardly distinguish our enemy, when suddenly their long thrusting-spears loomed up among us. Several of them were actually pulling up the bushes from our zareba. The crisis had arrived. Was this to be our last moment upon earth,—or was that reinforcement of riflemen I had just ordered from the other side of the camp going to turn the tide against our enemies? But now,—one more roll of musketry, and the noise ceased.

“ As the smoke cleared away, only backs were to be seen. Frantic to get away, the poor savages, who had now for the first time realized that a bullet will pierce a shield and kill a horse hundreds of yards away, were taking themselves off as fast as their legs could carry them. What has happened? My boy Moga killed! This is sad news, as Moga was one of the best boys I had. The cattle, mules, and camels gone, probably not to be seen again! This is also a loss we cannot well bear; the

sick men must now walk, and the loss of cattle means short rations. Not a native, however, has been seen after the battle, up to the time of my writing this, although I climbed a tree and looked for them with my glasses, over the bushes and into the plain beyond. I do not believe the natives will dare attack us again, but the outlook is not good. We have no guides, as our two Boran prisoners swear they know nothing of the country ahead; and then there is strong probability of Abofilato raising a still larger force, and attacking us in some bad position. But now I must step out of my tent and see poor Moga's body laid in its last resting-place.¹ Moga had been for years a servant to an officer on a French man-of-war, and could speak French fluently. He had not learned the vices of civilization, but rather he had developed into an honest, conscientious man, and by his cheerful manner he had endeared himself to me and to every one with whom he came in contact.

"*April* 9. We kept up a noise all night, firing guns every few minutes, not only to warn the natives but to keep the hyenas from coming near and eating the bodies of the slain that lay outside of the zareba. The morning dawned, and no native had been seen near the camp. I scanned the country closely with my glasses, and there, far off on the distant plain, was a little body of horsemen, waiting, perhaps, until we marched, to come for their dead, or to see if they could find some unguarded camel. One white horse, whose rider had fallen, I found grazing near the camp, and added to the caravan. Glad to get away from the sight of the dead warriors, who were lying about the camp, we set out in a westerly direction, keeping the

¹ He left a boy four years old and a pretty young wife in Aden, to whom I gave one hundred rupees, in addition to the regular wages I owed Moga. She was profuse in her thanks, and said that with the money I had given her she would have another husband within a month.





caravan in fighting order. There was no use now going to Abofilato, so I made up my mind to march by the compass, in as near a direct line as possible, to Lake Rudolf. We made our way slowly at first, over fairly open country, in grass up to our knees; but later the bushes began to increase in number, and after about an hour and a half we found ourselves upon a perfectly circular, basin-shaped depression, at the bottom of which was a pond.

"I believe this to be the top of a broad mountain which once was a volcano; but the basin is all that is left to mark the crater, which has been nearly filled up. After filling our water-cans, we were just about to march again, when voices were heard behind us calling, 'Nageia!' 'Nageia!' (Peace! Peace). Stopping the caravan, I ordered the Boran prisoners to answer that we also would have peace; and then, after repeated shouting, three horsemen came out of the bush toward us. We pitched camp at once. The principal man of the three told me that he was a brother of Abofilato, and that the other two were powerful chiefs; and indeed they looked to be very important individuals, from their corpulence, and from the large necklaces, made of the coarse hair of giraffe-tails, that hung in plaits down their backs, as well as from the many brass and copper ornaments that decked their bodies.

"They acknowledged that their only object in attacking us had been to loot ('Why, your houses are made of cloth,' they said, pointing to our tents), and that now, being exceedingly repentant, they would bring back all my cattle, donkeys, and mules, besides giving me guides. They would let the brother of Abofilato go home to arrange matters, while the other two chiefs remained in our camp as hostages; but the cattle could not be returned before three days, as they had been driven far away. The question is whether these protestations of peace are a ruse to put us

off our guard, or, as I hope, a result of fear. The latter is most probable, as the natives lost heavily in the battle, and they believe that we will stay in their country and loot. We have been doing our best to instil into the minds of our two hostages some idea of our power, laying much stress on a big gun we had, and which we refrained from using in the last battle.

“April 10. The big gun that we boasted of was fired last night in the shape of two rockets. No native was seen until this morning, when about one hundred horsemen appeared half a mile off. They sent two of the number to ask us if they could hold a conference with us, but I replied that I would only allow a few men to approach at once. Several times natives came to the camp swearing peace, but I could not be sure of their intentions, and kept a sharp lookout on all sides.”

CHAPTER XVI.

A SUSPICIOUS CHARACTER — MOST OF MY ANIMALS RETURNED — I DETERMINE TO EXPLORE LAKE ABAYA — THE ASEBA AND KARAYU (BORAN) — A CRUEL PRACTICE — MY PRESENT TO ABOFILATO — THROUGH A ROUGH COUNTRY — “OLD KING COLE” — AT ARGASSA — ABOFILATO’S SON — SHOOTING OSTRICHES, GIRAFFES, AND OTHER GAME — LOFTY MOUNTAINS — THE AMARA — THE DEATH OF PRINCE RUSPOLI — I TRY AMARA HOSPITALITY — AN UNFORTUNATE NIGHT.

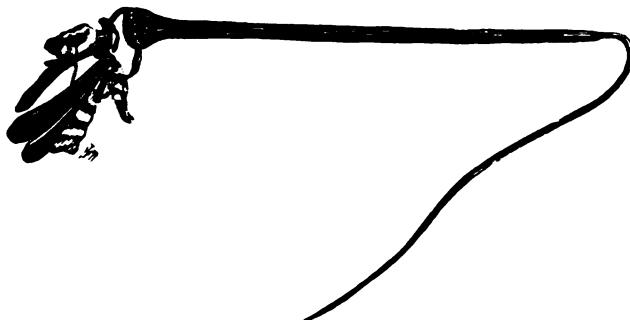
THE next morning a few old men visited us, bringing us a little milk and two goats as a present, but the goats were very thin, and did not allay my suspicions regarding the intentions of the Boran. A youth with spear and shield in hand was caught sneaking through the bushes. He pleaded that he was going to his brother, who had been wounded, and that he meant no harm. I threatened for a long time to have him shot, — telling all the Boran present that any one not coming openly along, but found sneaking in the bushes, would be killed; but after giving him a good scare, and doing him no further injury, I let the youth go.

About nine o’clock the welcome news reached me that some of the lost cattle were coming. The natives brought eight bullocks from one direction, saying the rest would soon follow, and later on came the three mules, with Abofilato’s brother and several chiefs.

Here was certainly fair evidence of peace, and we could consider ourselves once more free to take life easier. In the evening the majority of the cattle and all the donkeys were brought into camp, as well as a present of a sheep, and a bowl of honey from King Abofilato’s brother. The

chiefs remained all night in camp, their spears of course being taken from them. Lake Abaya, they told me, lay far to the north, and it was very difficult to reach; but they said they would provide guides as far as the Amara, a people living on a mountain not far from the lake, and from whom the Boran bought cloth and grain.

The lake, I thought, was probably the Lake Aballa, that has been marked in so many places on the maps of North-east Africa, and I made up my mind that at least I would make a good endeavor to reach it and settle its position.



BORAN WHIP.

Our road would take us among the Aseba people, and consequently three Aseba chiefs were assigned to lead us through their country. These were fine-looking, intelligent savages, of a deep mahogany color.

The Aseba and the Karayu Boran, in whose country we were now camped, are the richest and most powerful of all the Boran. All of them carry whips of rhinoceros hide, with bits of giraffe and zebra skins hanging from the handles, as well as bracelets composed of pieces of sheep, goat, and ox skins. The giraffe and zebra skins are trophies of the chase, while the bits of sheepskin are worn in commemoration of visits a man has paid his neighbors, when an animal has been killed for his benefit.

Every time I killed an animal and gave a Boran some of the meat, the man would immediately ask to be allowed to take away a small piece of the hide with him to add to his collection. The Boran, as a rule, do not circumcise, neither do they perform the plastic operations on their young girls, as the Somalis are accustomed to do. It is most extraordinary to see them drink the blood of every animal they kill. If they do not have a vessel large enough to hold the blood of the slaughtered beast, the natives take turns in drinking from the cut in the throat of the animal as the blood wells out. The process of killing is most cruel, as the Boran first cut the carotid artery, and after the blood has ceased pouring out from this in jets, so as to be caught in basins, they make several more deep gashes in the neck, and applying their mouths to these, suck the remaining blood as it oozes out, — the animal dying while they are drinking. Not a scrap of the animal is wasted, — lungs and all the other viscera being eaten. I sent several presents of fancy chains, looking-glasses, beads, cloth, brass, etc., as a present to Abofilato, at the same time advising him that I expected him to afford us every facility in travelling. If he wanted to fight, come and fight; we were ready for him. (At this his brother and the other chiefs threw up



BORAN WAR FEATHER.

their hands and cried: "No, no; do not mention fight. We want peace; no more war.") But if he were peacefully inclined, he would find us only too ready to make ourselves brothers to him, — witness the handsome present I was sending him. After three days' halt we started out again on April 13, expecting to reach a well which we had been told was five hours distant. But we had a hard and long day of it, spending twelve hours on the road in marching eighteen miles.

We kept up the same order as when we were surrounded by enemies, and when a camel's load got loose,

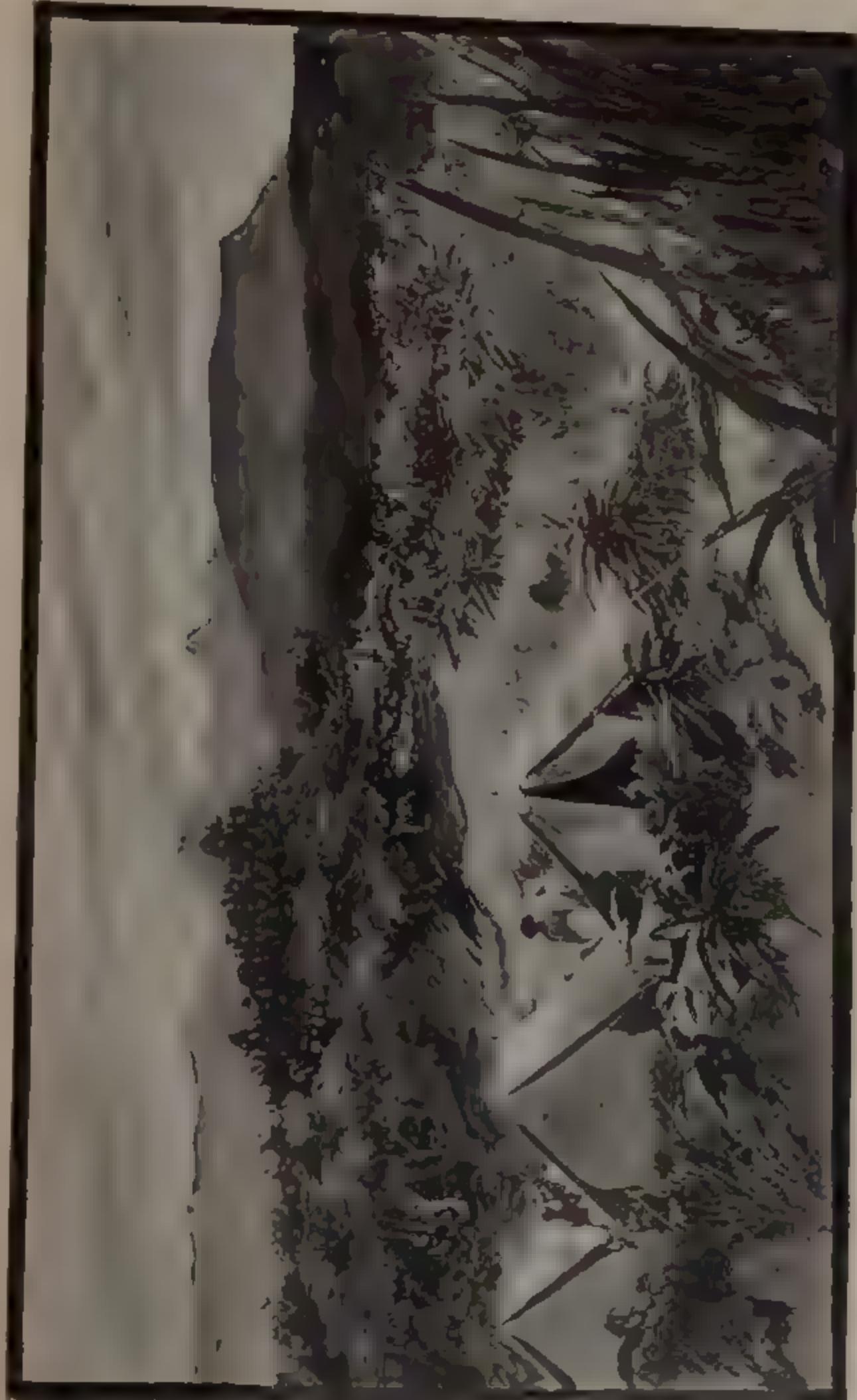


BORAN BRACELETS.

the whole caravan stopped, so as not to become scattered. Arrived at the well indicated, we found only a dry pond. We were forced to push on, not one of us, including Dodson and myself, touching food for thirteen hours.

Up to the last five miles the country was fairly flat and open; but now we ascended considerably, over a very stony and bushy pass, and threaded our way around the base of a group of rugged mountains. Below us lay another valley, eight miles across, and bounded on the north by a series of very jagged, rocky peaks, and barren mountains of red sandstone. Tired and worn, we at last came to a well of beautiful clear water, called Folle, just as the sun was setting.

There were a few villages in the valley, belonging to the Aseba tribe, and from these some of the people came to us bringing little presents of honey and milk. It rained considerably during the night and the next morning, but this did not deter us from marching on and reaching Argassa before noon. A more genial old soul than the chief of



NEAR ARGASSA

the Aseba, Abal Gal Gallo by name, who visited me here, I never saw. A regular King Cole was he, fat and jolly, and continually cracking jokes. It took an extraordinarily stout donkey to carry him, while he was supported in his saddle by a man on either side. Not content with his four hundred pounds of fat, he thought it necessary to weigh his body down with huge brass rings,—some of his bracelets alone weighing a pound apiece. His son, a youth of about sixteen, accompanied him, as well as several chiefs, bringing presents of milk and honey. Besides the ordinary cloak and short trousers, some of the Aseba wore turbans, also made in Amara and Konso. These were good specimens of native manufacture, made of cotton, with a blue-and-black stripe woven across. Four oxen had not yet been returned to us, so I decided to wait at Argassa a few days, as Abal Gal Gallo assured me that Abofilato would not only return me an equivalent of everything that was lost, but would also send me a handsome present. The old chief did all he could to entertain us, sending many gallons of milk to the camp every morning, as well as pots of honey. He even went so far as to offer me one of his wives. Three days after our arrival at Argassa, Abofilato's son came to camp, bringing with him seven sheep. This youth was about seventeen years of age, of enormous size, with a well proportioned body, and an oval and handsome face without the projecting cheek bones of the negro. He said that his father had commanded all the villages ahead of us to provide us with food and guides, and that if we waited two days more he would be able to send us a good present of cattle and sheep. On the 18th of April the present came in the shape of five oxen and a half dozen sheep; but this was very little, considering that four of my oxen had not yet been returned.

It was not at all an equivalent for the present I had sent the King. However, I decided the next day to march, as we had now spent nearly five days at Argassa, and the King had promised to provide us with food while in his country. We followed along the western edge of a high range of mountains, running nearly north and south, passing a pond full of water, from which we had our barrels filled, and camping finally in a very bushy place, after having made about thirteen miles.

I saw a good many ostriches on this march, and managed to stalk one to within forty yards. As I put my rifle up I felt all my hunting-spirit come back to me. I had never got so close to one of these birds before, although I had seen them many times in the distance. Scarcely had I fired when I saw the handsome bird fluttering on the ground. I was just about to give a shout to Dodson, when, to my surprise, a second ostrich ran from behind a bush only a few yards away, affording me an easy shot. This bird I also bagged, and a fine ostrich it was, in almost as good feather as the first one I had killed. It was a great piece of luck to get two of these birds at once,—the most difficult of all game to approach. The next morning we continued our march north, through a most beautiful valley. About twelve miles to our west rose a most splendid range of lofty mountains, called the Tertala Mountains, which extended all the way to Lake Stephanie; and running parallel with this, and just east of our line of march, was another group of mountains, called Elwayi.

The country looked very threatening to our progress toward the north. We could make out mountain upon mountain, rising higher and higher in the distance, till they seemed to pierce the clouds. There were many Burchell's zebras, Coke's hartebeests, and giraffes in the valley.

This was the first time I had met with either of these animals, those that I had previously seen being zebra *grevii* and Swayne's hartebeests. I stalked a couple of hartebeests within a hundred yards, and heard my bullet tell loudly as I fired, but the animal did not drop. On looking around I saw another herd of hartebeests coming directly toward me, frightened at the noise of the caravan; so I lay down flat on my stomach until they got very close. It would have been an easy matter to have killed several out of the herd, but I fired only at one, killing it instantly. A little later I succeeded in killing a fine specimen of a lesser kudu. In the evening a terrific thunderstorm arose, converting the wadies into raging rivers. Everything was abominably wet and muddy. Because of the continuous rains, it was almost impossible to keep botanical specimens, and the damp also ruined many of my photographic plates, in spite of all my precautions.

Our progress was soon to be stopped, for on April 22 we had reached the northern end of the valley, and were confronted by a great wall of mountains, rising from six to nine thousand feet above the sea level. Never in my life have I seen more game than there was about the edge of these mountains. Hundreds of zebras, hartebeests, gazelles, and ostriches, as well as many giraffes and rhinoceroses, were to be seen on all sides. We camped by a running stream of water called the Burga, that winds westward into the Galana Amara,—the river that I afterwards discovered emptying into Lake Stephanie.

I believed at that time that this Galana was the river Omo, and that it flowed into Lake Rudolf instead of into "Boyi," as the Boran call Lake Stephanie. The natives call the stream "Galana," which simply means "river;" so I have named it the Galana Amara, since it passes the Amara Mountains. After waiting two days and sending

my Boran guides to the Amara people, who live high up in the mountains, their chief came to visit us, bringing me a present of a sheep. I now learned that Prince Ruspeli had got as far as the Amara, having followed up the river Jub far to the north of my line of march, and that he had been killed by an elephant near the foot of the Amara Mountains. The chief told me that Ruspeli had spent a long time in his village, and that after his death his body had been taken up the mountain again and buried alongside of the graves of some noted chiefs. One of the Amara told me that he was an eye-witness of the thrilling scene of Ruspeli's last hunt.

When he reached the Galana Amara with his caravan, death overtook him. In the open plain ahead of his line of march appeared a large elephant. Ruspeli, who was ahead, motioned to his caravan to stop, and walked out alone to have a try for the beast. He crept to within thirty yards, and fired. Suddenly the huge animal turned on him, and in the twinkling of an eye the Prince was suspended aloft in the grasp of that powerful trunk.

To the excited natives, powerless to interfere, it seemed an interminable time that the beast kept swinging Ruspeli about in the air before he lowered the body to the ground and stamped out the little life that was left.

The Amara begged me to stay as long as I could among them, and promised to trade with me. The chief returned on April 25, and with nine boys I accompanied him up the high mountain. I did not expect to be gone long, and took no provisions of any kind with me, or extra clothing; but the scenery became so interesting that I continued climbing higher than I anticipated. We could now see the Galana far below us, winding through a very wide valley, and then cutting its way through a great mountain range. A little higher there was pointed out to me by the chief, Gote Gamo,

the lofty mountains of the Jan Jams to northeast of us, and lying near Lake Abaya. To the northwest, mountain-tops as far as the eye can see marked the territory occupied by the Konso people, while to the north lay the country of the Jeratu. I was now three hours away from camp, but the Amara told me their village was very near, and I was tempted to go still farther. We pushed on over the undulating plateau, passing one cornfield after another, in which hundreds of natives were working away with their three-pronged hoes.

The village was always "just over the next hill." I kept on for another hour, and beheld the village appearing on a rocky peak, and still a good half-hour away. It was now a question of returning, or going to the village to spend the night. The chief told me he would give me a house and food and a wife if I would remain until morning.

I had gone so far that I did not like to return without seeing the village, and if I did not go back directly I should not arrive at the camp that night; so I accepted his kind offer,—except the wife,—as I could not resist the temptation of trying Amara hospitality, and studying something of their customs. Most of the broad top of the mountain is terraced, and planted in Indian corn, durrha, beans, pumpkins, coffee, a kind of cabbage, cotton, tobacco, and banana-trees. Many are the isolated huts scattered about. Several peaks rise from the plateau, and it is on the most picturesque of these that the beautiful village of the Amara is situated. The thatched dwellings rise one above the other, shaded by tall cedar-trees, and separated by beautiful gardens in which grow many tropical plants, while trailing down over the natural rock terraces are various flowering vines.

I was much struck with the picturesqueness of the spot, high up among the clouds as it was, and where the cold

and pure air invigorated one and the superb view made life a pleasure. The people did not at all disappoint me. They were one of the most thrifty tribes I had yet met with in Africa. Many were bordering on the negro type in their musculation, high cheek bones, and black color, while others were browner, and with more elongated and regular features, — Semitico-Hamitic.

A long nose with a curved Jewish tip was very conspicuous. The expression of their faces was rather pleasant, except in a few cases where the men painted themselves with a red clay so as to present a diabolical appearance. Many of them wore caps made of goat-skins, with the hair attached, and which were also used as water-vessels; but the majority of them were bareheaded, and wore their hair done up in long bushy puffs. Javelins as well as thrusting-spears, and round shields, often made of hippopotamus hide, were their weapons, offensive and defensive.

The Amara guided us up a very steep passage between walls built against the rock, until we reached a strong-looking stockade made of large trees cut in sections, the branches as large as a man's leg, interlocking with one another. Passing through a well-made gateway, we found ourselves in a large yard, at the other end of which was the chief's house, now to be placed at my disposal. The walls on three sides of the yard were made of stone, and along these were standing six huge bowls, shaped like water-barrels, made of plaited grass covered with clay, and filled with ground durrha and tobacco. The house was forty feet long and very wide, with a slanting thatched roof extending over tall wooden walls and reaching to the ground.

I had to stoop to enter the one small doorway, and push aside the grass, after which I seemed to be in absolute



VILLAGE OF THE AMARA.

darkness. But gradually, as my eyes got accustomed to the gloom, I made out a long chamber, on either side of which were rows of stalls. The stalls on one side contained a pony, goats, sheep, and chickens, while on the other side were the private apartments of the household. There were many little pickaninnies playing about a low fire that burned at the farther end of the room, with their mammas, — wives of the chief, — all of whom seemed very curious to investigate the stranger. I was given an ox-skin to sleep on, and a cloak of native manufacture, while the chief's saddle afforded me a hard pillow.¹

The room smelt abominably, and the vermin were appalling. But these little inconveniences are common in Africa, and I knew what I was to expect when I ventured to live as a native. I kept outside as long as I could, talking to the several hundred natives that were grouped about the courtyard; but it soon began to rain heavily, and I was forced to go back into the house and endure everything. A goat was killed at our feet, and a great mess it was cutting him up and cooking him. Honey, ground meal, and the ordinary wine made from durrha were brought me; but, had I not had an enormous appetite, I could not have touched any of these things, they were so mixed with dirt. Later on my boys managed to fall asleep, except the two sentries that I kept on guard, but it was impossible for me to get an instant's rest. The pony was continually kicking up a row, probably on account of nibbling rats; and then some pickaninny would begin to bawl, whereupon there would be a chorus of female voices in manly tones, and after a good sound whacking with a goat's-leg bone, the infant would be restored to a state of rest. To cap all,

¹ The pillows made by the Amara are the same as are used by most other tribes I met with, and consist of little pieces of wood, shaped like a maltese cross, the head resting on the cross-piece in an apparently most uncomfortable position.

a cock fell from the loft in the middle of the night, and all attempts to quiet his outcries only made them the more terrible.

The vermin became so exasperating that I had to strip nearly naked and sit over the fire so that I could better wage war on them. In the morning I was provided with guides to take the caravan around the mountains to the Galana River, and I was promised that when I reached the river I should be given porters to take me to Lake Abaya. Half-way to the caravan we encountered Haji Idris and a number of my boys, armed to the teeth, and on the war path, to fetch me from the Amara, as they feared I had been made prisoner.

CHAPTER XVII.

MARCH TO THE GALANA AMARA (RIVER) — SHOOTING RHINOCEROSES AND ELEPHANTS — INEFFICIENCY OF LARGE-BORE RIFLES — MOSQUITOES AND GENDI FLIES — CAMP ON THE GALANA AMARA — THE WORK ATTACHED TO EXPLORATION — A BIG ELEPHANT — I START FOR LAKE ABAYA — TWO OF MY BOYS WOUNDED BY AN ENRAGED RHINOCEROS — DIFFICULTY IN URGING MY MEN TO FOLLOW ME — BEAUTIFUL LAKE ABAYA — MUCH ANIMAL LIFE — THE COUNTRY TO THE NORTH, AND THEORIES REGARDING THE OMO RIVER — MANY TRIBES — ORIGIN OF THE GALANA AMARA — SPORT — A HUNGRY LOT.

THE camp had been well supplied with food during my absence, Dodson having shot a zebra and a couple of hartebeests. In order to get around to the Galana Amara we were obliged to retrace our steps somewhat, and cross the mountain range which lay to our west. The march was one of six hours; but the time passed quickly, as there was an abundance of game about. Early in the morning I shot two gazelles; and a little later, just as we had crossed the mountains, a rhinoceros appeared in the river valley below us. Motioning to the caravan to halt, I crept behind some bushes, and got a shot only thirty yards off. The animal dropped to his knees on receiving a bullet in his chest from my .577, but the next second he was on his feet again. He tore about madly for a time, and then plunged headlong into a thick bush, which he apparently tried to uproot; but another bullet rolled him over on his side.

Hardly had we gone two hundred yards beyond this when I made out two elephant bulls dozing quietly under

a tree. Going up to within twenty yards of one of them, I took a steady aim with my eight-bore at a point just behind the shoulder, and fired. The elephant only raised up his huge ears and commenced to back away. I lodged three more bullets from my eight-bore at close quarters, directly over the region of his heart, and had the satisfaction of seeing the beast roll over on his side and remain quite motionless. As Dodson was behind the caravan, collecting, I handed Karsha my .577, and told him to remain with the dead elephant until the caravan came up, while I went after the second beast.

Before I had gone far I heard many shots fired. What could it all mean? Had the beast that I thought I had killed actually got on his legs again? But as I had come now upon the second elephant, I thought I had better attend to him before going back to Karsha. The hunt was a long one, as the elephant did not seem to mind being cut to pieces by two-ounce bullets any more than a rhinoceros would mind being shot at by a Winchester. I followed the wounded beast for over three hours, and then had to abandon the chase, as I did not know where the caravan had got to, and I was alone with only one of my boys, Abdi Farrah. I had no water with me, and the long hunt in the hot valley made me so thirsty that I was glad to drop down and suck up the muddy water that lay in a hole made by an elephant's foot. Late in the afternoon, when I had regained the caravan, I was told that the first elephant I had shot had risen to its feet, much to the amazement of Karsha, and had then slowly walked away.

Dodson told me that he had seen from the distance no less than forty of my boys following close on the heels of the wounded elephant, and firing at the brute continually with Winchesters and Snyders. The animal must have

received over a hundred bullets, a dozen of them being from my .577 express; but still he walked on, until my boys abandoned the chase. I was thoroughly disgusted at the result of this elephant hunt. Two fine beasts had been wounded, both of them with large tusks, and must surely die; but it was doubtful if I should ever see them again. I was so disappointed at the effects of the bullets from my eight-bore, planted at close quarters, directly over the region of the heart, that I determined to use this rifle only as a reserve weapon in future, and to depend entirely on shooting elephants in the brain with my .577.

Taking out the thick wads from my .577 cartridges, I loaded the cases up with seven and a half drams of powder, just managing to clasp the base of the hardened bullet so that it would not fall out. This, I thought, would be a more sportsmanlike way of shooting elephants, at any rate, even though I might not kill so many; for if I hit them in the head and did not reach the brain, I should at least not give them such a wound that they would go away and die afterwards. There was much rain in the afternoon, and the valley of the Galana was converted into a swamp. This valley, called the "Budessa Galana," is ten to twelve miles wide and thirty miles long, and bounded on the north by the high Konso range of mountains, while on the south the Tertala Mountains continue eastward all the way to the Amara and the Jan Jams.

Clouds of mosquitoes make life almost unendurable for human beings, while the gendi fly soon puts an end to the lives of all domestic animals. To avoid the fly, I had the camp pitched as high up on the mountains as possible, and five miles from the river. But still, in spite of this precaution, the animals suffered greatly, as my narrative will show later. On the morning of April 28 I sent out men in different directions, and went myself, in search of

the two elephants we had wounded yesterday. We followed the tracks many miles, and finally found the second one I had shot lying dead near the river; but we never saw again the elephant that had received such a bombardment from rifles of all descriptions. The elephants about these countries are apt to wander long distances, from Lake Rudolf to the Amara, and again far up north to Curague, so that one cannot depend upon finding them in the same spot two weeks in succession.

We moved camp a little farther up the valley, and then spent ten days waiting for the Amara to let me have porters for my proposed side trip to Lake Abaya. There were many birds and other natural-history specimens about the Galana that we had not seen before, so that Dodson and I employed our time to the best advantage in collecting, and I was also able to get a good rate for my chronometers. It rained every afternoon about four o'clock, and the sun was obscured by clouds at midday, so that I had to make my observations from the early morning stars.

The work of collecting natural-history specimens was always a delight to me. As I had undertaken this journey purely for scientific purposes, I enjoyed shooting with my collecting-gun some tiny bird, if it was new to my collection, more than bringing down the biggest elephant. But the work of mapping out the country, although I regarded it as the most important undertaking I had assigned to myself, was always a great labor. Night and day I was obliged to work, whenever I was stopping for two or three days in one place, to rate my chronometers. On the march, whenever it could be managed, I took bearings with a prismatic compass of the different hills and mountains, and then after camp was reached I had to work out the observations of the preceding day, and take a new set of observations with my sextant or theodolite. No one,

unless he has experienced it, can imagine the labor that this geographical work entails.

Every little difference in the method of portage, and every variation of climate changes the rate of a chronometer to varying degrees. Fortunately one of my chronometers, lent me by the Royal Geographical Society, was admirably compensated, and did not vary over a second a day, at any time, from the effect of climatic changes; but even one second in time means a quarter of a mile on the map, so that I had to rate continually, and look sharp for the best time for doing so. My second chronometer, which I bought in London, varied as much as four seconds a day under the effect of changes in temperature. Both my watches were half chronometers, such as are carried now by almost every traveller on land, and cost in London about £40.

One morning, from my camp at the foot of the Amara Mountains, I could see with my glasses four elephants feeding on a little plain by the river; so taking Dodson and three boys, I started in pursuit. This time I did not go close to the animals, but stationed myself with Dodson behind the trunk of a tree sixty yards away. Giving Dodson my eight-bore, I took a careful aim with the .577, and fired. The elephant dropped on its knees, and then got up again and walked along at right angles to us in a very dazed manner. The animal seemed to be about to drop every instant; so I told Dodson to fire with his eight-bore, and I also took a couple of shots more. But the elephant had received a mortal wound in the head, and after going ninety yards fell over on his side dead. The other elephants now made off; but I was so pleased at getting my one animal, as he had such splendid tusks, that I did not hunt any more. The elephant stood eleven feet four inches to the shoulder, with one tusk weighing eighty-seven pounds

and the other seventy-five pounds. The first bullet that I had shot from my .577 had done the work, as it had passed clear through the ear of the elephant and lodged against the body of the first cervical vertebra, producing a fatal lesion in the spinal cord.

On the morning of the 8th of May I started with sixteen Amara porters and twenty Somalis for Lake Abaya. But what a time I had with these so-called porters! I had the greatest difficulty in getting them to carry loads of only twenty pounds apiece. We could not even take donkeys with us, as the Galana was flooded, and the ascent of the Konso range was reported to be very rough, so I had to content myself with carrying only the most necessary articles, such as my instruments, spirit-jars, and other boxes for collecting natural-history specimens, and a few bags of meal.

We crossed the river in the little canvas boat, and by three o'clock in the afternoon we had left the plain of the Galana and were commencing to climb the mountains. An Amara guide led the way, followed by myself and Aden Auole, to whom I had given my .577 to carry. We were going up a very narrow, bushy, and steep pass, when suddenly, just as we were only ten yards from the top, a female rhinoceros dashed down upon us from behind a bush, where she had been waiting for us, with the rapidity of a cat. She made a great row, snorting and puffing and sending the stones clattering down the path from under her feet as she charged into my poor guide. I managed to plunge in the nick of time into a dense thorn-bush, while the guide was tossed several feet into the air. I could have touched the beast as she passed me, but her eyes were fixed on Aden Auole, and on him she now vented her wrath. She had him flat on the ground in an instant, and proceeded to probe his back with her horn. But fortunately a rhinoceros

does not seem to be able to thrust its horn vertically downwards, but every shot glances off a man's back, and only produces a few cuts and bruises, that are not very serious, although they are very painful.

While the rhino was engaged with Aden on the ground I could have caught her by the tail; so one may well imagine that I tried to get out of that thorn-bush, in spite of torn clothes and scratched skin, as quickly as possible. As soon as I had freed myself, I rushed in a circle around to where some of my boys had congregated, so that I could snatch a rifle and help Aden; but before I could be of any use the rhino had taken to its heels and was racing up the mountain.

Boys, bags, and boxes were lying in confusion along the path. Aden and the guide lay apparently lifeless, and bleeding, where they had fallen. Hopes of reaching Lake Abaya vanished for a few moments, and all my thoughts were turned to caring for the two wounded men; but nothing so serious, after all, had happened, except that the men were cut and bruised and very much demoralized. The Amara and my Somali boys made a great ado about the affair, crying out that ill-luck would certainly come to us if we continued our journey. In fact, they were in absolute terror from fear of meeting another rhinoceros. Finally I got my Somali boys in a little better state of mind by telling them that I would march some distance in advance of them and carry my .577, and they would have little risk to run; but the Amara were not to be moved by any reasoning. I was forced to take each one by the neck, lift him from the ground, and give him a good shaking, before I could get him to shoulder his little load. One of them, who came up in a rage and tried to intimidate me, I struck with a stick a couple of times, and threatened to shoot if he did not obey me.

After a great deal of trouble I managed to get my men once more started on the way to the lake, leaving behind five boys to take care of Aden and the guide. A great deal of the meal had been spilled, and a good part of the remainder I left with the wounded fellows, so that now we should have to depend almost entirely on the game I shot.

The way was very rough, but before dark we had gained the high plateau lands, over five thousand feet above the level of the sea, or three thousand feet above the valley of the Galana. There were no paths whatever except those made by rhinos, and at times we had to pull ourselves over high rocks. During the whole march I led the way, carrying my .577; but I only saw two more rhinos far off in a valley.

I had been assured by the Amara that we should reach the lake before noon the next day; but after plodding our way for hours over marshy plateaus that reminded me much of the fjords of Norway, across deep ravines and up and down mountain peaks, we found ourselves at eleven o'clock in the morning on an eminence from which I could see the lake far distant to the north. The porters here cast down their loads and seemed to think the journey was ended. They had imagined that I had come to see the lake only from a distant mountain-top. They told me that Prince Ruspoli had ascended a mountain on the Konso range without going nearly so far as we then were, and had been satisfied with simply taking their word for it as to the position of the lake. I was obliged now literally to shove the porters along, and hard work it was getting down the mountain side over rough loose rocks hidden in wet grass up to one's waist.

We were slipping at every turn; but finally, after a couple of hours, we reached the marshy plain, through which a small brook flowed into the lake. We camped at six in

the evening only two miles from the lake, completely tired out, and unable to go a step farther. There were many hartebeests, gazelles, rhinos, and zebras in the broad valley, so it was easy to procure food for my boys.

Indeed, the zebras and hartebeests were so numerous that they appeared to form one vast herd several miles long. By sunrise we were on the lake, and a happy man I was as I looked over the beautiful sheet of water and felt that I was the only white man who had stood on its shores. There was little time to be lost, so I started at once to measure out a base and find out the size of the lake. It was from eleven to twelve miles across, and almost rectangular, the eastern and southern sides presenting gently sloping grassy plains and low hills for a couple of miles until the mountains of the Jan Jams and the Konso range are reached.

On the north and west high mountain ranges, rising directly from the water's edge, extend far away in the distance. From a high peak on the Konso range I could make out peaks fifty or sixty miles to the north that must have been nine thousand feet high.

The Omo River was supposed by geographers to flow across this country from east to west, but it seems quite incredible to me that any river could have found a fissure deep enough to allow its waters to pass this broad and mighty mountain wall. This is the continuation of the great water-shed which we had ascended at Sheikh Husein, and which extends south and west from Abyssinia to Lake Rudolf. On the north rise the Hawash and the Blue Nile. To the south rise the Jub, or Ganana, the Omo, — which probably flows into the Jub, — the Dawa, and the Galana Amara; and to the west the Nianam, which flows into Lake Rudolf. To the south of Lake Abaya there are no inhabitants until you come to the rich and intelligent Konso tribe, thirty miles distant.

These, as I have before mentioned, are the principal weavers of this country, supplying the Boran and many other tribes with cloth, and are also excellent agriculturalists, raising very good coffee, tobacco, and cereals. To the north of Lake Abaya I could make out many points from which smoke issued, proving the region to be thickly populated, the Amara giving me the names of different tribes according to the positions in which I have placed them on my map. They comprise the Yero, Done, Gonjabelo, Busia, and the Jeratu. All these people raise corn, and many of them weave a coarse cloth. Very nearly all the tribes that I met or heard of living high up in cold countries had learned to make some sort of cloth from force of necessity, whereas I did not find a single tribe living in the hot country that knew how to weave.

The Jeratu are the most powerful people about Lake Abaya, and extend far to the west. They are on good terms with their neighbors, except with the Busia. These latter are the common pests of all the tribes, living only by loot. They are few in number, but prove themselves a very formidable foe to their neighbors, with their poisoned arrows and tricky methods of warfare. They conceal themselves in holes in the ground, and attack usually at night.

The Amara and Jan Jams buy much ivory from these various tribes to the north, and sell this again to the Boran, — the Boran, as I have stated, being in communication with Somali traders from Bardera. These "Hawayi" Somalis pay enormous prices to the Boran for their ivory,—as much as ten oxen for a tusk weighing eighty pounds,—and are then obliged to transport it several hundred miles to Merka or Modisha, so that their profits are not very great.

The water of the lake was wonderfully clear and fresh, and full of fish and hippopotami. One of the species of

fish which I caught was a very beautiful mullet, covered with large silvery white scales, changing to yellow near the tail (*Eutropius depressirostris*). They weighed from two to fifteen pounds apiece, and afforded excellent sport. There was also another variety of fish, called *Chromis niloticus*, which is the best fish, from the standpoint of an epicurean, to be found in the Nile. I caught these in the three lakes, Abaya, Stephanie, and Rudolf, but found them in none of the rivers that I crossed. They weighed usually from half a pound to four pounds apiece, and closely resembled black bass.

Flitting continually over the high reeds which grew on the shore of the lake were thousands of beautiful tiny birds, with black breasts and yellow heads, backs, and wings. They looked like large bees as they hovered about in the air, and made themselves very agreeable companions by keeping up a constant gentle warbling. Egrets, ibises, a bird that resembled very much the American rail-bird, herons, ducks, and geese abounded.

I also saw many bush buck, but failed to get a shot at any. On May 11 we marched around to the eastern shore of the lake, and camped on a bit of high ground overlooking the water.

We seemed to be in an artificial park, from the way in which the trees and bushes were scattered over a lovely grassy plain sloping toward the water. Far off in the distance, as our eyes passed across the lake, we could make out the great rugged mountains, forming countless dark little bays as they cut almost vertically into the water. A tramp of a couple of hours brought us to the foot of the great mountain of the Jan Jams, on the top of which we could see many fields planted with maize and durrha; and just here I made the interesting discovery that a part of the Galana Amara arises from Lake Abaya. The stream

that flowed from the lake was only fifteen yards wide, deep and rapid; but this, together with the multitude of small brooks that flow from the mountains on the south of the lake, would be sufficient to account for the large body of water that flows through the Budessa Galana.

I was told that a small stream does circle around from the northeast, and empty into the Galana Amara; but I do not think that this can be the Omo, or, if it is the Omo, that stream must be a very insignificant affair. While returning, a rhinoceros charged us, after being wounded by one of my bullets; but before he reached us I had had time to load up, and gave him two more bullets, breaking his shoulder.

As we needed food, and the Somali boys would not eat rhinoceros meat, I also killed a zebra out of a herd that was standing gazing at us as we passed by. Its companions fled; but before they had gone fifty yards, the mate of the one I had killed uttered a peculiar roar, and came galloping back directly toward us. He actually came within twenty yards of us before he stopped, and received a fatal bullet in the head.

The camp was made very merry, the boys cooking the zebra meat and eating the whole night through. At midnight I went out of my tent to enjoy the interesting scene. There was a slight ripple on the waters of the lake, the little wavelets shedding forth showers of stars as they reflected the bright light of the moon. The quiet outside the camp was only broken by the occasional deep grunt of a hippopotamus or the barking of a fox. Turning now to the camp, a different scene presented itself. Fires blazed brightly on every side, lighting up the various groups of my boys so as to make them look very picturesque, their smooth dark skin shining like silk, and their faces wreathed in smiles as they sang away merrily or chewed their huge

pieces of zebra meat. First one boy and then another would lean over and snatch one of the hot pieces of meat that lay suspended on sticks over the fire, force one end of it far back into his mouth, and dexterously cut it off close to his lips with a dagger nearly as big as a machete. Although I had eaten a hearty dinner, I had worked so hard the day before that I could not resist the temptation to join the boys in their repast. I ate the two pounds or more of flesh in native style, but I do not think I ever enjoyed a meal more in my life; nor had I any the less appetite for my breakfast, which I ate just at sunrise, while we were preparing for our march back to the caravan.

CHAPTER XVIII.

RETURN TO CARAVAN — NIGHT ATTACK BY A RHINOCEROS — THE AMARA DISPLEASED BECAUSE I WOULD NOT JOIN THEM IN THEIR RAID — “TIME DOES NOT COUNT” — THREATENING COUNTRY AHEAD — MUCH GAME — THROUGH DENSE JUNGLES — WE FIND SOME KONSO PEOPLE — THE CAMELS SHOW SIGNS OF POISONING FROM THE GENDI FLY — ON THE TERTALA PLATEAU LANDS — FORCING THE NATIVES TO TRADE — AN ELEPHANT AMONG THE CAMELS — A BORAN GIRL JOINS THE CARAVAN — OLA FINDS CLOTHES A NUISANCE.

WE did not march back the way we had come, but took a more southerly course, camping after nine hours high up in the mountains. We passed much game, and I could have had any number of shots at forty yards; but I contented myself with shooting two zebras, three gazelles, a hartebeest, and a rhinoceros, which supplied us with abundance of food to last a couple of days. I saw many beautiful finches on this march, black-colored, with a long tail, and back of head and throat red. Two of these birds I shot, and in the evening prepared their skins, as they were new to me.

About midnight I was awakened from a sound sleep in the night by the well-known puffing of a rhinoceros. Every one was on his feet in an instant. My boys were in a wild state of excitement, as they had by no means recovered from the effects of the shock produced by the charge of the female rhinoceros that had “boned” my guide and Aden Aoule. I had just time to call loudly to my boys not to shoot into the camp, for fear of killing men

instead of beasts, when the rhinoceros dashed like a steam-engine through the zareba wall amongst us.

Arrived in the centre of the camp, the beast became blinded by the light of the fires and danced a jig for a few seconds ; and then, getting his nose straightened out before him, he sped through the bushy fence on the opposite side of the camp, and away. Who is it that would prefer sleeping monotonously in his downy civilized couch to enjoying such nights as these in the jungle !

We reached the river the next day at three o'clock in the afternoon ; but Haji Idris was not there with the boat to take us across, as I had hoped, and we were obliged to march back again to a little hill and camp for the night. From here I could see the caravan about six miles away on the other side of the river, so I had a big fire built, when it got dark, as a signal to Dodson to send the boat in the morning. The mosquitoes attacked us in such clouds that it was impossible to get any sleep, and I was obliged to sit over the fire in the smoke the whole night through. We were again visited by a rhinoceros, but this time the beast did not break through the zareba. I could make out the huge form of the animal tearing up the ground about twenty yards from the camp, and collecting a few of my boys together I ordered them all to fire at him simultaneously. Our visitor did not like his reception and left.

In the morning, Dodson, Haji Idris, and many of the boys from the caravan were already down at the river when we arrived there. I had been away from the caravan just a week now on one of the most delightful trips it has ever been my good fortune to enjoy, so that Dodson and I had much to tell each other. Dodson had been working hard, as was his custom, and had succeeded in collecting many rare birds. Everything was in order in the camp, but the Amara had not sent guides to take us west, as they had

promised. Dodson told me the chief of the Amara was very angry with me because I had refused to join him in making a raid upon his neighbors. The natives could not understand my reason for refusing to help them in this manner, since I should be able at the same time to get much loot myself. On May 15 I sent twenty men to the Amara to ask that they send the guides and food they had promised.

The river curves through a narrow gorge about twenty miles to the west, and the chances of my following the stream did not seem favorable; but I determined upon making the attempt, at any rate, as I thought at the time that the Galana emptied into Lake Rudolf. My messengers returned from the Amara in the afternoon and reported that it was impossible to get guides, as the natives vowed they knew nothing whatever of the way along the river; but the chief promised to come himself and bring food early the next morning. We waited all the next day, but not a native put in an appearance. I was much disappointed, as I had hoped to get a good supply of food here; but I did not care to force the old chief to do what he did not wish, especially as he had entertained me for a night so hospitably, and had provided porters for me to Lake Abaya. The loads were arranged, and everything made ready for marching; but just as we were about to leave in the morning, the chief appeared with about thirty Amara porters bearing bags of durrha meal on their backs.

The natives could not understand why I wished to hurry so. They said they had been leisurely preparing the food, as they did not believe a few days' delay would make any difference to us. We had been promised the food a week before, but I could not be angry with the old chief, as time is no object to natives. The Amara threw up their

hands when I told them I was going to follow the river. "No one ever goes that way,—you will surely be killed by elephants or rhinoceroses;" "You had better go back to the Aseba," "and from there across good country to Boyi" (Lake Stephanie). But the unknown is always interesting, and I was keener than ever to go in a straight line.

Our first march took us across the plain in which Prince Ruspoli had been killed. There was no path whatever, and we kept stumbling continually in the deep holes made by elephants; but nevertheless, by working all the day, we accomplished about fifteen miles. Taking all my best men with me, I ascended a small hill near the camp to get a better view of the mountainous region we intended crossing. There was much discontent shown by my boys, and I was afraid of their breaking out in open rebellion, as I had chosen to take them again through very rough country, notwithstanding the many hardships they had already endured.

As I looked through my glasses toward the west, the mountains seemed threatening indeed. The gorge was very narrow, but upon closer inspection the valley appeared to widen a bit around the first curve of the river. Yes, there was certainly a way for some ten miles at any rate. I told my boys there might be many obstacles to encounter; that the river might have to be crossed, and boxes and bags carried over rough places on the men's shoulders, but that in a fortnight we should probably be at Rudolf, and I promised them a handsome present, in addition to their regular pay, for the excellent work they had done for me.

My head men were very much pleased at my offer, and when we got back to camp we soon had all the boys in good humor, and once more ready to encounter whatever might come. We started out in excellent spirits the next morning, and marched fast for six hours across the widest

part of the Galana valley, curving now more south and then more west, around a swamp, till we reached the water-gap.

The camels travelled well, in spite of the deep ruts and the long coarse grass. The country was almost level, and if we had attempted the journey a fortnight earlier we should have found it an impassable swamp. But the rains had ceased now, and the waters were rapidly drying up. I never saw a greater variety of game at one time than I did in this march. Burchell's zebras, Coke's hartebeests, Waller's and Thompson's gazelles, water bucks (*Cobus defassa*), *Oryx beisa*, ostriches, wart-hogs, elephants, and rhinoceroses abounded.

And as luck would have it, to swell this list, the noise of the caravan startled a lion from behind a bush, but too far away for me to get a shot. I saw a single track of a buffalo, but none of the animals themselves. The cattle disease that swept through this country five years ago spared scarcely one of these fine animals out of the herds of thousands that used to roam about, as is shown by the quantities of skulls lying about on every side. One rhinoceros attempted to charge the caravan, but I made him turn from his course by lodging a bullet somewhere in his abdomen. We camped well in the canyon, through which the river passed, in the midst of a dense forest.

Far off on the mountains to the north were many gardens belonging to the Konso people, but there were no signs of human beings ever having visited the valley. On May 19 we followed the windings of the river along rough elephant paths that were obliterated in places by bushes and tall grass. Much chopping had to be done, and at times it seemed impossible to go any farther. There were many hippos, but I did not shoot them, as I could not have recovered their bodies. The next day our difficulties

still further increased, the bushes became so dense; but in the afternoon we came to a broad valley, and found a well-trodden donkey path which led to a ford in the river, and looking across the stream we beheld a village of about one hundred inhabitants. As we had been pestered so by mosquitoes, and there was considerable danger of fever along the river, we followed the donkey path some distance as it led up the mountain, and camped on a high, grassy knoll.

The river took a bend to the northwest as it passed through a narrow opening in the mountain which seemed to me to preclude all hope of progress. I sent off one party of boys to see if it would be possible to make our way along the river, and another party up the donkey path; while a third company of ten men, with Haji Idris, I sent to the village across the river to get guides. The latter returned in the evening with some people from the Konso tribe, and also with two Boran, who said they lived high up on the mountains to the southwest, and that they belonged to the division of the Boran called Tertala. The Konso were very friendly and intelligent people, very dark in color, and much resembling the Amara.

They were clad in enormous cloaks of their own manufacture, and some of them wore turbans on their heads. Like the Amara, they have a distinct language of their own; but as they trade so much with the Boran, many of them speak Galla, so that I could converse with them through my interpreter. I managed in this way to jot down about thirty words in the Konso tongue, which appear in the appendix of this book.

We did not move camp the next day, as I wished to trade with the Konso people, and also give the camels a rest. These animals, for some unaccountable reason, had become very weak, and many of them succumbed to the lightest

loads ; whether it was the result of fly bites, or the wet ground they had to lie on when camped near the Amara, I could not then tell. A Boran named Liban, of the Mataro tribe, told me his people brought nitrate of soda, which they call "megada," besides cattle, goats, and sheep, to trade with the Konso people in exchange for tobacco, coffee, and durrha. The "megada" is crushed up and mixed with tobacco to give it a spicy flavor, and is greatly prized. The boys I sent to explore the river told me it would be absolutely impossible to take the caravan along its banks, and I was also informed that the donkey path was too steep for the camels to ascend.

According to the natives, the donkey path led clear across the Tertala Mountains, and came to the river again near Lake Boyi; so I determined to try to take this road, as we had to move on anyway, and this seemed to present a few less difficulties than the river valley. There was a curious hill near the camp, rising like a pyramid from the river valley, and on the top of this was a mass of glistening white quartz. The principal stone to be found in this country is a coarse granite, and volcanic rock. We spent a whole day hard at work, getting the camels up the donkey path. The road led up the steepest and stoniest mountain passes one could possibly imagine. We succeeded in ascending fifteen hundred feet, but the camels were in a terrible condition, even those that were not loaded coming into camp almost too tired to walk. The mountains were covered with euphorbias, instead of the umbrella mimosa-trees we had been accustomed to see lately, and the underbrush was very dense, comprising different varieties of acacia, cactus, and aloe.

We camped by a small brook of clear water running towards the Galana, in which I caught a small fish resembling a chub. There was much micaceous grit on the banks



A POOL OF WATER IN THE TIENTIEN MOUNTAINS

of this stream, and I was surprised to see my two Tertala guides cover their bodies with the sand, so that they glistened like a doll on a Christmas tree.

The next day we managed to reach the high plateau land, and to march as far as a large settlement of Tertala Boran called Lenja. There were over twenty villages scattered about a small valley, comprising in all some two thousand huts. As we reached our camping-place by a small, muddy pool of water, we were met by the chiefs of the villages, who promised us every assistance. I saw larger herds of cattle here than I have seen anywhere outside of Texas. They must have numbered over ten thousand. I told the natives that King Abofilato had promised me a handsome present, but that now, since he had not sent it, they must bring plenty of their animals to me to trade. Dodson and I and several of the boys were beginning to suffer from fever, probably the results of living near the Galana; but the attacks did not last long, and the pure air of the Tertala Mountains soon made us strong as ever.¹ We remained at Lenja the next day, but I found the natives the meanest and hardest people to deal with I had yet met. They brought only three lean sheep and a few bowls of milk.

I told them they could take all these things back, as they well knew I had seventy-three men to feed. After much wrangling, they left the camp and sat under a tree; holding their heads together and talking as seriously as though their lives were at stake.

In about half an hour they returned to my tent, and in as dignified a manner as possible first one and then another took his position cross-legged in a circle on the

¹ On boiling a thermometer, I found the Tertala plateau lands to be at an elevation of five thousand feet, with mountain peaks rising five hundred feet higher.

grass, while I sat quietly in my chair smoking a cigarette and waiting for the natives to speak first. After a good deal of coughing and spitting, one old man ventured to make a remark. "Leibon" (which means master or chief), "we have thought a long time, and we have come to the conclusion that we will take still more of your cloth. We will bring you one more sheep."—"One more sheep!" I said. "Is this all you people who have cattle by the thousands can do for me? Good-night, my friends; if you do not bring at least fifteen good oxen to sell me before I leave your country, I will take that many and more by force." They made many protestations, but I would listen no longer, and dismissed them from the camp.

On May 24 we marched for nearly four hours over the plateau in a westerly direction. The whole of this grassy plateau land may be described as a series of shallow basins, the centre of each basin being covered with dense bush, while outside of this jungle are fine, open, grassy pastures. Where the edges of the basins join one another they take the shape of low hills or ridges, which are also bushy near the top. The road was very good except where we had to cut our way through the bushy bottom lands. An elephant made its appearance near our camp, coming from among the bushes, and walking in amongst the camels. He became suddenly frightened, however, and dashed off again into the jungle just as I was picking up my rifle to go after him.

The inhabitants of three small villages near by did not seem to possess many cattle, but nevertheless they brought a large bullock and eight sheep for sale, which was fair enough considering that they were so poor. I told them I was quite satisfied with what they brought, but that it would go hard with the people of Lenja if they did not bring before night the bullocks I had ordered. No more

animals appeared, however; so I sent twenty men with some trading goods to Lenja, with orders that, as soon as it got light, they were to seize fifteen bullocks, drop the trading goods, and drive the animals back to the camp. I knew the natives would not attack my boys without Abofialto's orders, and so it happened; for by ten o'clock the next morning my boys arrived in camp with the bullocks, and off we started on our journey.

After marching nearly six hours, we came to a brook of crystal-like water, and camped in the midst of several villages. The natives appeared very friendly, and were glad to sell us three oxen, telling me I had served the people of Lenja right in taking their animals by force, as they considered it a matter of duty to be miserly and never on any account to part with their cattle.

The camels needed a rest, and we were told the road was very rough ahead, so we halted for a day with our friends. A young Boran girl, named Ola, asked permission to accompany the caravan, as she said her parents were both dead and she was very poor; and on her promising to make herself useful in every way, in bringing wood, cooking, etc., I told her that she might come along with us. Her only garment was a short skirt of rough cloth, but the upper part of her body was nearly concealed by huge chains made of porcupine quills, coffee grains, plaited reeds, and a very few beads. Telling her to throw away her old skirt, I gave her a piece of clean white American sheeting, which covered her whole person, and with which she seemed greatly delighted, strutting about among her people and causing much envy. She told me she did not mind where she went; that sooner or later she would find a husband among some of the tribes we passed. Going a good way north on our next march, we came to the edge of the plateau, and saw the Galana once more.

flowing through a valley more than three thousand feet below us.

It was rough work; but before dark we had descended about a thousand feet to a beautiful little brook, the third stream we had seen on the march. Ola caused us considerable amusement at one time, when she became a little tired from marching. Not having been accustomed to wearing much clothing, she found the large cloak I had given her very annoying, and in a fit of temper threw the whole thing to one side, making herself appear so ludicrous, as she danced about naked, that my boys could not help setting up shouts of laughter. Finally Ola began to realize that the boys were making fun of her because she was not even wearing her accustomed skirt, and picked up again her discarded "meriken;" but she only tied the cloth around her waist this time, vowing she would never more endure wearing anything over her shoulders.

CHAPTER XIX.

LAKE STEPHANIE IN SIGHT — THE GALANA AMARA EMPTIES INTO LAKE STEPHANIE — SIDE TRIP TO THE LAKE — FISHES AND BIRDS — SHOOTING A RHINOCEROS — DODSON AND I JOIN THE CARAVAN BY THE RIVER — THE WATU — IMPOSSIBLE TO CROSS THE GALANA — ALL THE WAY AROUND THE LAKE — I AM AT LAST SUCCESSFUL IN JOINING MY LINE OF MARCH FROM BERBERA WITH THAT OF COUNT TELEKI MADE FROM THE SOUTH — CATFISH — A NEW LAKE — A DARING WARRIOR — THE ARBORE CORN-FIELDS.

ONE whole day was now spent in climbing the rest of the way down the mountains, but how happy we all were; we had seen Lake Stephanie! As we rounded a low ridge, we beheld to the south a broad marsh, and below it the waters of the lake, stretching away into the distance further than we could see. And there was the Galana Amara surely emptying itself into this water. I was astonished, because I thought the Galana flowed into Lake Rudolf, and also because I had expected to find Lake Stephanie two marches farther west, as it is laid down on the map accompanying Count Teleki's book.¹

We camped two miles from the lake, by a small stream of flowing water which Ola told me was not perennial.² I expected to cross the Galana River; but in order to triangulate the lake, it was advisable for me first to go as far

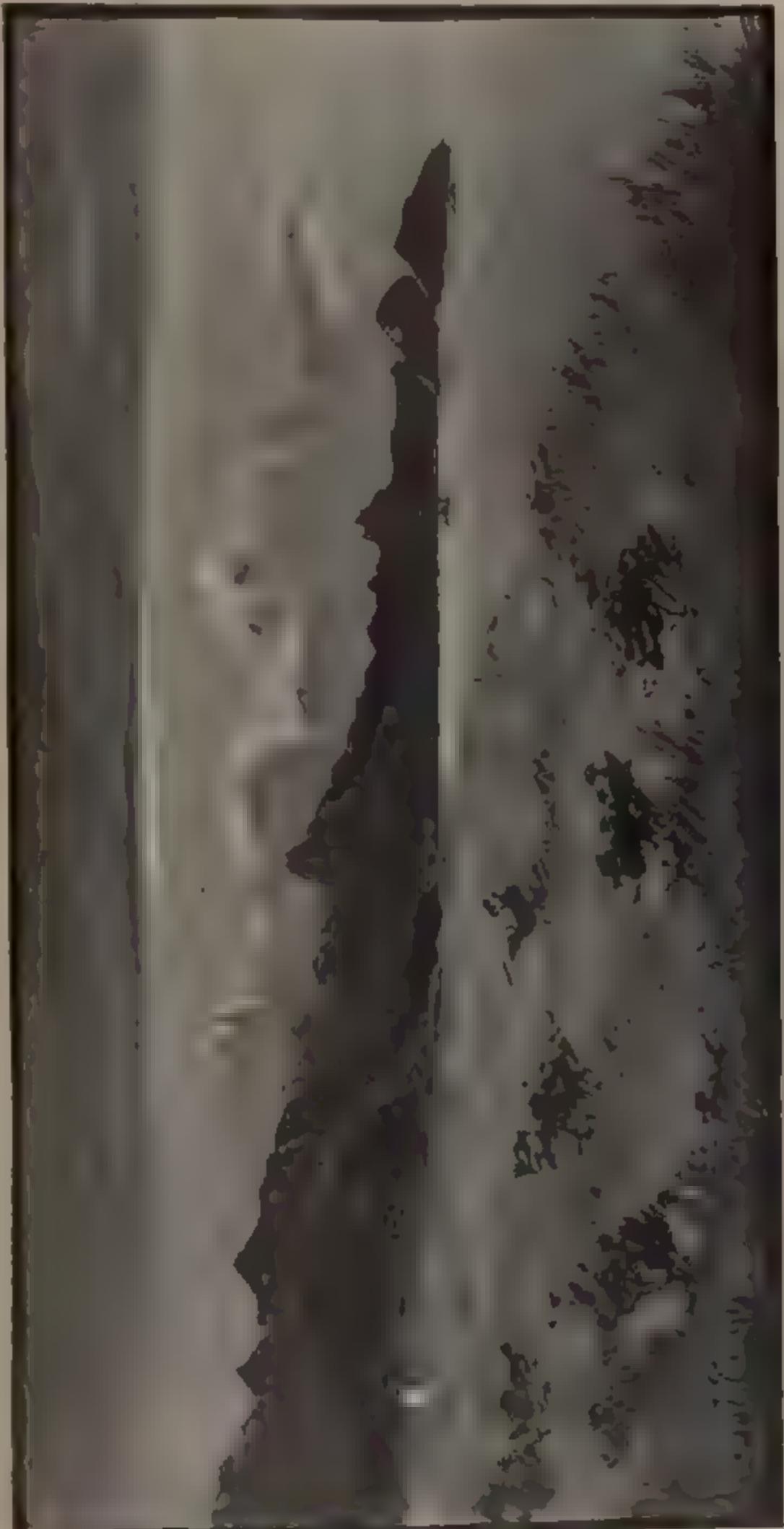
¹ The map in Count Teleki's book is incorrect: but I understand that shortly after the publication of the book, Lieutenant von Höhnel, who made the surveys for Count Teleki, rectified his errors in a great measure, so that at present his positions and mine very nearly agree.

² There is a well called El Re lying at the foot of the mountain pass, which never dries up.

as the clear water on the eastern side of the lake. Dodson and I therefore, with a few boys, made a side trip to the south, taking the boat along, while the caravan proceeded to the river.

The upper end of Lake Stephanie is a marsh, and a long line of reeds extends a distance of five miles into the lake near the western shore. The lake resembles a boot in shape. On its eastern and western sides it is surrounded by lofty mountains; the Tertala range on its eastern side ends abruptly about a mile and a half from the shore, but a low line of hills is continued from the range to what we may call the heel of the boot. Immediately off this are eight islands, mere rocky masses, which form sanctuaries for millions of aquatic birds. I took several soundings far out in the lake, but did not find the water over twenty-five feet deep in any part. There are no people living immediately on the lake except at the northwest corner, but the mountain range on the western side is inhabited on its higher slopes by a part of the Amar tribe. The lake is thirty-seven geographical miles long and fifteen miles wide.

We spent three interesting days on the lake, collecting and surveying. There were many species of birds here, which are distributed throughout Central Africa, but which I saw now for the first time, including a large black-colored cuckoo, a yellow-breasted sun-bird, and a gray weaver-bird which builds a nest resembling the bowl and stem of a tobacco pipe. The narrow hollow stems hang down about eight inches, and through these the birds have to crawl to reach their nests. On some dead bushes that grew in about four feet of water there was a community of cormorants which had just begun to sit. Dodson and I were too eager for a change of food to leave them unmolested, and for a long time we had not been in a country where



LAKE STEPHANIE FROM THE NORTHEASTERN CORNER

there were chickens ; so, rowing out in a boat, we collected several dozen eggs, — enough to supply us with omelets for many days, and excellent omelets, too.

I may say we lived very well on Lake Stephanie, for besides the cormorants' eggs, there were many teal and whistling ducks about the marshes, the latter being very tender, and nearly equal to canvasbacks in flavor; and the lake also abounded in fish. Dr. Albert Günther found two species of fish new to science in the collection I made on Lake Stephanie. There were many crocodiles and hippopotami in the lake, and they would often come quite near the boat, but they never ventured to attack us. Every evening great flocks of gray starlings with yellow wattles flew north past our camp, and myriads of aquatic birds circled about the lake. The mosquitoes were frightful at night, but a strong wind blowing from the southeast every morning drove them away.

On June 1, just after starting for the caravan, the boys called to me that there was a rhinoceros near by. I hastened ahead and saw the beast walking in the tall grass by the lake only eighty yards away from my camels. It was a bad place for a charge, as there was but one way to escape, and all my five camels were blocking this opening ; but as the animal commenced to walk toward us it became necessary to shoot. I let go at his shoulder, and a loud thud told me the bullet had struck the animal, but too high to kill him instantly. He was much hurt, but did not seem to recognize the position of his enemies. He tore about snorting for a few seconds, and then dashed off in an opposite direction, twisting and turning and puffing as only a rhinoceros can, until he got wind of the camp we had just quitted, when he dashed through the zareba, and commenced to stamp about the still burning fires. We were momentarily expecting that he

would rush down upon us, as he could now scent us, and Dodson and I were ready with our rifles to receive him; but his wound proved too much for him, and soon turned him over on his side.

In a couple of hours we came to the road which the main caravan had taken, and after following along this for some time arrived at a village of the Watu Boran, where I found Haji Idris and my boys camped. There are no people called Marle, as Count Teleki had supposed, living north of Lake Stephanie, but there is a little tribe of people called the Watu, an offshoot of the Boran, living near the mouth of the Galana. They number about a thousand souls, and are chiefly agriculturalists. Their neighbors on the northwest are the Arbore, a very rich and warlike tribe, of whom I shall speak later. I found that the river had overflowed its banks, and that it was impossible to cross it owing to the deep mud on either side. We spent a week at the river, trying to cross at many points, but all to no avail. Just as we had succeeded in making some sort of a road in the mud by laying down logs, the river suddenly rose higher than I had ever seen it.

Several of my camels and one of my mules died; and it was obvious that they had been bitten by the "gendi" fly when camped near the Amara. The mule became much swollen about the neck, eyes, belly, and soft parts, and finally his hoofs doubled under him from paralysis.

There were many gazelles and water bucks near the lake, and also a few elephants; but I was too busy in trying to cross the river to do any hunting. On June 8 we struck camp with the intention of marching clear around Lake Stephanie, as we could not tell how long it would be before the river would subside. After marching for three days along elephants' tracks, we came to the small group of rocky, barren hills that I have described as forming a

promontory at the southeastern extremity of the lake. Here were many evidences of volcanic action, but none of them of recent origin.

The ground was strewn with pieces of obsidian or volcanic glass, lava, ashes, and conglomerate rock, besides masses of fossil oyster shells. Dodson and I rowed out to three small islands that lay quite near shore. The first was a mere barren rock a hundred yards long, and on it we found nothing of interest; but on the other two, which were much larger, and covered with bushes, we found myriads of aquatic birds building their nests and rearing their young. Every available bit of ground and every bush was occupied by nests. There were egrets, cormorants, herons, storks, ibises, geese, plover, and ducks by the thousands.

We took back many different kinds of eggs, and found that none except the cormorants' eggs were edible; but luckily we had enough of these for several omelets. Two more marches now brought us to Count Teleki's camp (June 12). There was great rejoicing among us, as we had now accomplished one of the things we had long been striving for,— to join Count Teleki's line of march, and so complete the circuit from Berbera to Zanzibar.

The march to Rudolf would have been nothing now had I followed the way described by Lieutenant von Höhnel, but my object was not simply to get to a certain point. The Watu had told me of the existence of many tribes to the north of Stephanie, and led me to suppose it would be a most important country to explore, so I determined not to lose the opportunity. There was a great change in the lower end of Lake Stephanie from the time it was visited by Count Teleki, seven years before. The lake extended half a mile further inland, and where there had been a barren desert, there was now dense grass and weeds, seven

feet high. One of my camel-men, named Abdulla Dualla, died here of dysentery. After leaving Count Teleki's camp, we found it most difficult to get to the west shore of the lake. The ground was soft and muddy, or else covered with marsh, through which we had to wade in water up to our ankles. With every step the camels sank a foot into the mud. To make matters worse, we had two small streams to cross with steep muddy banks. There were hundreds of catfish in the streams and mud-holes, where they had been left stranded after a flood. One fish that I poked out with a stick must have weighed thirty pounds. There were many crocodiles also in the marshes, and my boys had to fire continually to drive them away. Once on the western shore of the lake, our way was quite easy for us. There were plenty of good rhino paths leading along the shore, and the ground was hard and firm, so that we could travel quickly. Just to our west rose the chain of mountains inhabited by the Amar, and which extends the whole length of the lake.

In three marches we had reached the northwestern corner of the lake, having marched all the way around the big sheet of water in eight days. The lake is forty-two (statute) miles long, but it is over one hundred and twenty miles in circumference, so that we made very good time indeed. I now made the interesting discovery that another lake, ten miles long and from one to two miles broad, extended northward from Lake Stephanie to the villages of the Arbore. This lake is only separated from Lake Stephanie by marsh, and may be connected with it in times of flood.

As I could get no native name for the newly discovered sheet of water, I named it Lake Donaldson.

We rested for a day before going to the Arbore, as it was raining heavily and the camel blankets were too wet

and heavy for the tired animals to carry. But the rain did not prevent Dodson and myself shooting a couple of zebra *grevii*. Between the river Jub and Lake Stephanie we had met only with Burchell's zebra, but we found both Burchell's zebra and the zebra *grevii* inhabiting the same country about Lake Stephanie. I never found the two species intermingling in herds, however.

When we arrived at the northern end of Lake Donaldson, after a six hours' march, I was surprised by four of my boys running up in great haste and calling out that they had been attacked. I had shot a gazelle on the march, and had left four Somalis behind to fetch the meat, not supposing that there were any natives about; but while engaged in cutting up the animal, about a dozen naked savages belonging to the Amar tribe rushed down from the mountain and attacked them with javelins. My boys only fired over their heads and ran. The Amar followed to within a hundred yards of the caravan, which had now camped on a hill rising out of a plain immediately north of Lake Donaldson. A few of us approached the natives and called to them in Galla that we were friends and wished to talk with them. They might not have understood the Galla language, but they could have had no doubt of our meaning when we picked up grass and held it towards them, as this is the universal sign of peace throughout Northeast Africa.

The natives were bent on showing their teeth, however, and only replied by gesticulating wildly and threatening us with their weapons. One of them seemed to wish to do something daring, and was about to run at us with his bow and arrows, when he was seized by one of his comrades, who took away the weapons he held, and substituted a couple of javelins in their place. The youth with the javelins now acted one of the funniest little scenes in

pantomime I have ever seen. He was a well-built and graceful savage, and absolutely naked except for a small piece of sheepskin that hung from his neck over his back. Around his ankles, knees, and arms, were rings of sheepskin, with the white wool attached, and contrasting well with his black skin, while a large white ostrich feather waved to and fro on his head. He ran first to one side and then to the other, and at each turn would give a jump, swinging his body completely around in the air before he alighted. Every dash brought him a little nearer, until he got within thirty yards of where we stood. Then planting his thrusting-spear fiercely in the ground, he raised his javelin to throw it at us. He was such a fine picture of native prowess that I did not wish to kill him; but his javelin would very likely have hit one of us, and I was forced to do something out of protection, and ordered instantly one of my boys, who was carrying a shot-gun, to give him a charge of small shot.

On the report of the gun, the native gave a spring into the air, doubled up, and ran away as fast as his legs could carry him. Neither he nor his companions stopped running before we lost sight of them in the dense bushes at the foot of the mountains. The little handful of men that had attacked us, we were told afterwards, belonged to some villages that lay quite near to Lake Stephanie on the sides of the mountains, and although an offshoot of the Amar, they were at war with their relatives, as well as with the Arbore. These latter had not yet made their appearance, but they were not long in doing so. Most of the plain to the north of our camp was covered with their durrha fields, while three large villages of the Arbore lay a mile and a half to our west, separated from us by a good deal of bushy country.

CHAPTER XX.

TRYING TO MAKE FRIENDS WITH THE ARBORE — I FIND MYSELF IN A DANGEROUS POSITION, SURROUNDED BY DANCING AND YELLING WARRIORS — TREACHERY — DESCRIPTION OF THE ARBORE — SOUNDS OF WAR — THE ARBORE ATTACK OUR CAMP — FIGHT IN THE BUSHES — THE THREE PROUD KINGS — WE CAMP NEAR THE ARBORE VILLAGES — I FORCE THE ARBORE TO EX-CHANGE MANY OF THE CATTLE AND DONKEYS FOR TRADING GOODS — THE LAST OF MY MULES — WE VISIT THE BURLE — OLA FLIRTS WITH ONE OF MY BORAN GUIDES — THE BURLE OR BURA — RELIGIOUS FORMS — OLA FINDS A HUSBAND — SHE DESCRIBES HER WEDDING CEREMONY.

THE Arbore collected in groups about the cornfields, but they paid no attention to our repeated friendly calls for a long time.

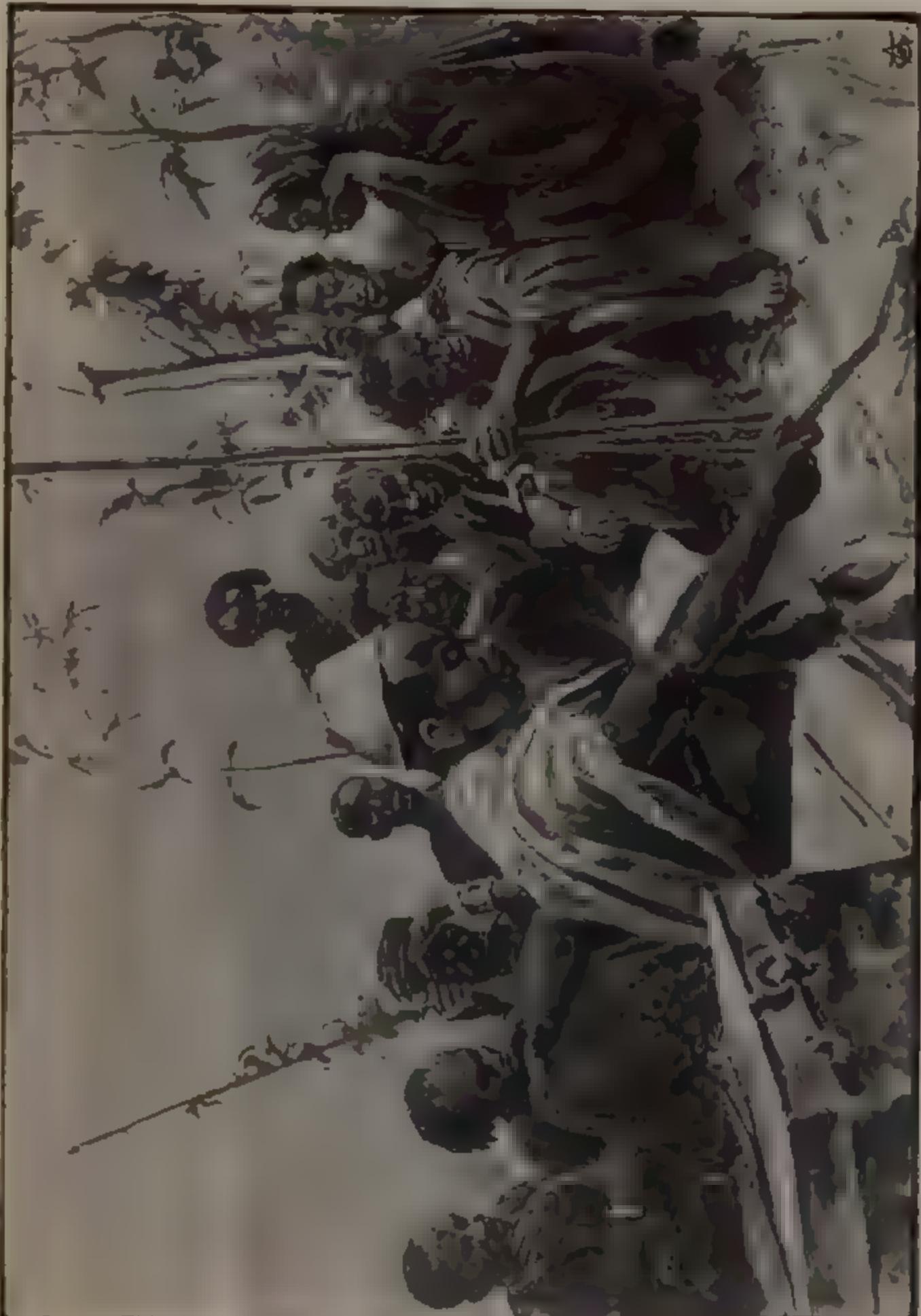
It looked very much as if we were going to have war, until eleven men approached the camp, just as it was getting dark, bearing branches in their hands. They were too frightened to come very near at first, so, taking my interpreter, I went over to where they were standing. One of the eleven ran away, although there were only two of us; but the other ten stood their ground, and waited until I came up to them and handed them some grass. They told me they were only the poor people of the Arbore, who had been ordered to guard the durrha fields, but they would carry the news to the villages that we were friends. I gave them to understand that I needed guides, and also cattle and donkeys, and that I had plenty of trading goods to pay for these if the Arbore would sell. The natives left, professing peace; but there was something in their manner that made me suspicious, and caused us to keep a strict guard all night.

In the morning not a native was to be seen, so I determined to go to their villages to try to hurry them up, as I was afraid of fevers if we waited about these marshes.

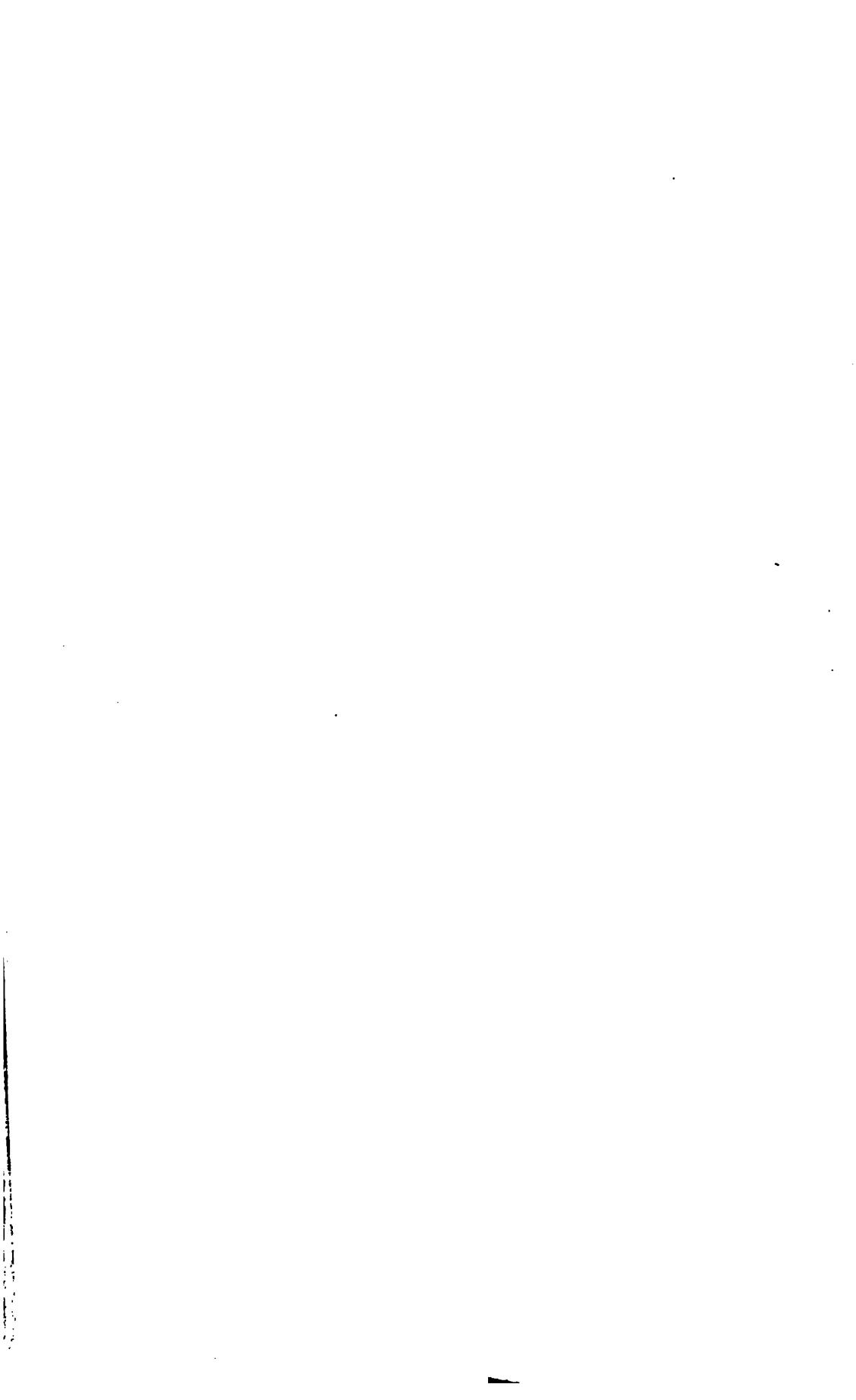
Taking twenty-nine men with me, I started at two o'clock on my visit to the chiefs, with the intention of telling them that whatever they were going to do for us they must do quickly, or else we would march on. As we approached the villages, however, we were not met peacefully. Two of the villages were very near together, and surrounded by tall stockades, and from the gates of these thronged hundreds of warriors adorned with war paint and feathers.

We quickly formed a square under a large sycamore-tree, calling loudly all the time that we wished peace. The natives completely encircled us, coming nearer and nearer every second. Already within easy shooting distance with their bows and arrows, they were levelling their weapons at us. It seemed beyond the realms of possibility that we could avert a fight. Every instant each one of us felt that he would be riddled with poisoned arrows; but all the time there were a few old men rushing about from warrior to warrior and holding them back just as they were on the point of shooting. Many a young wife came out, too, and implored her husband not to fight. At last many of the warriors became calmed down, and came over with the old men to have a conference with us. The shauri was long and exciting.

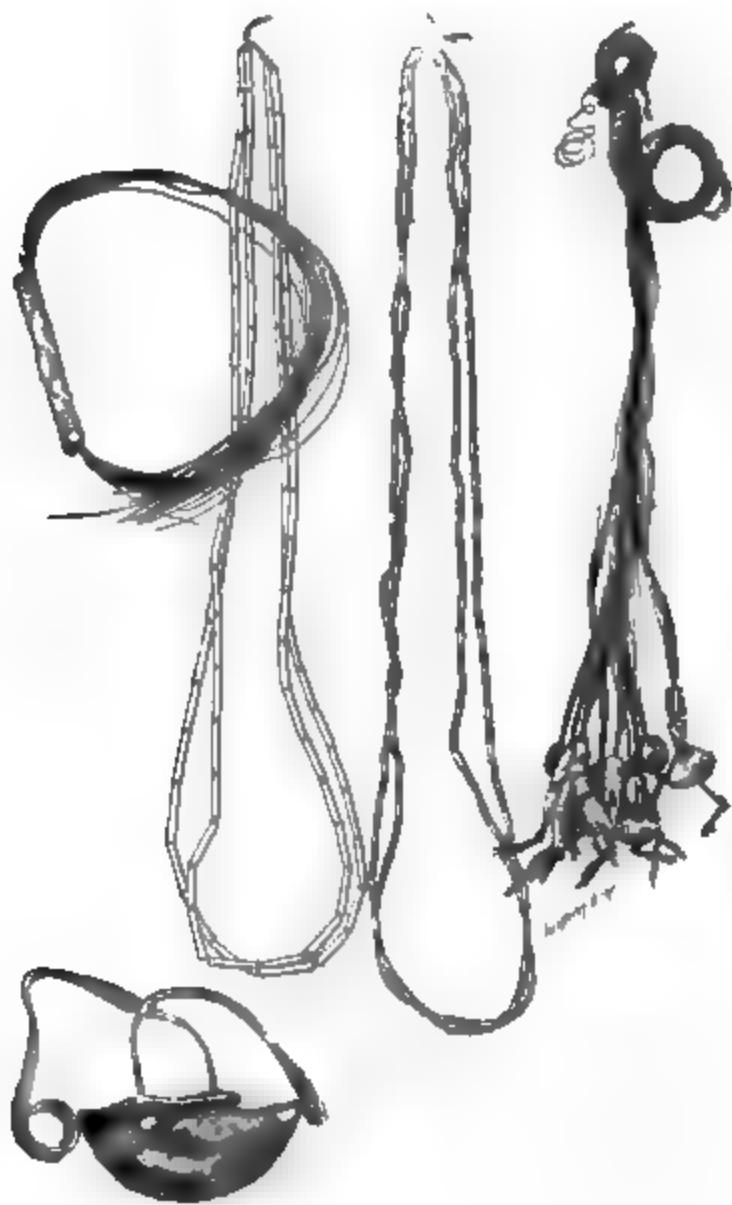
In order to appear friendly, I had to sit with my interpreter very close to the large body of natives, — all of them well armed with spears, as well as bows and arrows. Many times the younger warriors would point at me insultingly and then threaten to shoot, so that my position was uncomfortable in the extreme. The result of the conference came to this: The natives promised to provide me with



THE FIRST APPEARANCE OF LIFE ARBORE.



guides as far as the Burle, a tribe living a couple of marches to the north, and also to sell plenty of animals the next day. I told them that I never fought natives unless they attacked me first, and that I was not going to force them to do anything they did not wish, but that I had merely come to ask them to sell me their animals.

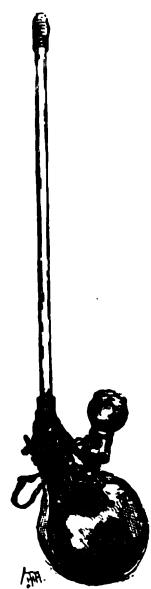


ARBORE NECKLACES AND BELL FOR ANKLE.

The old men were very reassuring in their manner when I left them, but many of the young men still kept up a kind of *danse du ventre*, throwing their heads first forward and then backward, as though itching for a fight. They wore only a loin-cloth, but many of them had leopard-skins hanging down their backs, and huge caps of ostrich

plumes. On their ankles and knees were many rows of bells, made of iron and shaped like small oyster shells, that tinkled with every motion, and around their arms and necks were many rings of brass, ivory, and beads. We returned to camp feeling very glad indeed that we had averted a fight, for the time being at any rate. I did not like, however, the insolent way in which even the old men had

treated us on parting, as though they thought they could finish us quickly any moment they chose; and I was afraid that they only restrained themselves from attacking us at the village because they thought they could better capture all our animals by attacking the camp. The Arbore were very rich. We saw thousands of live-stock of all kinds, except camels and mules and ponies, and many hundred acres of durrha. Only about half the inhabitants of the two villages we had visited were Arbore, the rest being Boran; but they were not under the rule of Abofilato.



ARBORE PIPE.

The third village, which is situated a little farther south, named Ehe Gudi, is entirely Arbore, and is the largest and richest. I thought I had seen the chiefs of the villages, but I was mistaken, as each village is ruled over by a single powerful king, who very rarely leaves his dwelling. He considers it beneath his dignity to go out of his house to attend to affairs of state, but spends his time in offering sacrifices to Wak, and studying the intestines of the slaughtered animals. Some of the richest of the Arbore wore loin-cloths and head-dresses of a gay-colored material, made in Merka and Modisha, which they had obtained by trade from the Boran; but the majority of them wore the ordinary coarse Konso cloth, made into short trousers and

cloaks, which they threw over their shoulders. When fighting they go nearly naked, as I have stated.

They make excellent bags, baskets, and rope out of the bark of saplings, and a plant resembling the aloe, extracting the fibres by chewing. Many of their ornaments are very well made: brass bracelets wrought in many designs and highly decorated, ivory tobacco pouches with leather tops suspended around their necks, bells, finger-rings, and wooden combs for their hair. They also manufacture earthenware pots and pans; wooden vessels; bludgeons pointed at one end with a heavy knob on the other, and decorated with rings of iron; staffs, etched by means of a hot iron; iron chains; and various useful articles in leather. Their weapons consist of bows and arrows, javelins, and a few long thrusting-spears. Only a few of them use poison on their arrows. The iron points of the arrows are either barbed or spear-shaped, with a shaft devoid of any feathers. The people themselves are of a dark-brown color (some of them almost black), and only average about five feet five inches. They have rather poor physiques, and their features are irregular and very ugly, but they do not have the large lips of the negro.

The women wear an apron of skin reaching from the shoulder to the knees, and cover themselves with chains of cowry shells, beads, porcupine quills, or anything they can pick up. Many of them wear a long brass disk suspended over their foreheads.

My suspicions regarding the natives were well founded; but, fortunately for us, they did not attack before letting us know exactly when and how they were coming. Soon after dark we could hear war-whoops and the sounds of the war-horns proceeding from the three big villages. Undoubtedly the natives were going to attack us, but we were not hurried in our preparations for defence. The

noises in the villages kept up all night, and to our relief the morning dawned without the enemy having made any advance. They were still shouting and blowing their war-horns while Dodson and I were eating our breakfast, but now the sounds began to come steadily nearer.

Everything was in readiness for defence, so there was nothing for me to do but to light a cigarette and wait. Presently the naked forms emerged from the bushes, jumping and dancing about, as is the custom of savages. They intended to surround the camp, and consequently broke up into sections; but as they were within seventy yards of the camp we opened fire on them at once. They could not stand the firing more than a few minutes. Starting up some cry or other, they all started off to a plain on one side of the bushes, and there sat down and waited. We watched for a long time, and saw the natives separate into parties, which went into the bushes, leaving a small detachment on the plain.

We did nothing for an hour, and as the natives did not change their positions, I concluded they were waiting for us to move first, so they could attack us on the march. This would have been very bad for us, so I decided to charge through the bushes with fifty men spread out in line, leaving Dodson with the rest of the boys to guard the camp. It was not very agreeable work to attack a body of four hundred and fifty warriors, all of them, as we thought, armed with poisoned arrows; for if they were to play their game well, and sneak behind bushes, from which they could shoot without being seen, they would surely wound many of us. However, my boys were full of courage, and marched as steadily and regularly as possible through the jungle. Every moment we expected to receive a shower of arrows. It got to be most exciting, wondering what our enemies would do, after we had tramped a quarter of an hour with-

out seeing a native, when lo, and behold, as we emerged into a wide opening in the bushes, we found the stupid savages lined up before us a hundred yards distant! We marched up to within fifty yards of them, and then, seeing they were about to give us a volley of arrows, I gave the signal for my boys to fire.

The natives were not given a chance to let fly their arrows, but rushed instantly into the bushes, where they stood their ground once more. We now made a rush in two parties and commenced to clear the bushes. Many arrows fell among us, but we were too quick in our actions to let the natives recover from their first shock. They tried their best to rally, but everywhere met with a volley from our rifles. They broke back, and we followed at a run, now stopping to fire, and now running forward as the natives retreated. Collecting the boys, I sent twenty of them back to camp with orders to Dodson to follow me with the caravan, and then rushed on with thirty boys to the villages. Strange to say, not one of us had been touched by an arrow, but the Arbore had suffered a good deal.

Just as we reached the villages three old men came forth with grass in their hands and leading a sheep, to make peace with us. This was too ridiculous. We were not going to let these natives off as easily as we had the Boran, after their attacking us in such a treacherous manner; so taking the old men by the neck we marched them along with us. We made them show where the three big chiefs of the villages lived, and quickly had these mighty dignitaries out of their houses. Actually the three kings had remained in their respective dwellings after all their people had left the villages. Surely, they thought, Wak would protect them, and not allow their sacred persons to be forced from their houses.

One was a man who must have weighed very nearly four

hundred pounds, by name Baro Archali, of the village called Gondaraba. He was surrounded by several wives in his large hut, and made the greatest uproar, and finally actual resistance at being drawn forth from his den. It was all that six men could do to carry him along.

The second king, Ea Bulla, of the village Ehe Gudi, was nearly as big as Baro Archali; but Kulama, of Oto Dibo, was very different. He was very small and thin, only twenty-two years of age, and with the most fiendish and sensual face. He was engaged in sacrificing a sheep when we found him, and had smeared the blood of the animal over his whole person. The big war-horn, made of an elephant's tusk, that I found in his house, and that had helped to keep us awake all night, I at once appropriated. Dodson soon came along, amid loud cheering, and our camp was made close to the villages. We found much honey, tobacco, and all sorts of things belonging to the rich Arbore, and it was all I could do to keep the boys from looting everything they saw. I allowed them to take the honey, however, as nothing tickles a Somali's palate so much as this; and they deserved it for the way in which they had fought. There was great rejoicing in camp, and I had some difficulty in keeping Ola from nearly teasing the life out of the old fat king.

I sent word to the natives that their women could go to and from the village unmolested, and that a few men at a time could approach, if they were unarmed, but that any man seen with a weapon in his hands would be shot. But never again will the Arbore dare to fight against rifles, or "gola bishan" (water-throwers), as they sneeringly called our weapons when I first visited their villages. My camels were daily growing weaker under their heavy loads of trading goods, and the Arbore had cattle by the thousand. Why should I not drive my food



FIGHT WITH THE ARBORF

along, instead of being hampered down with many boxes and bales. Holding Baro Archali as a hostage, I let the other two kings go, with orders that they were to bring me seventy good bullocks and two hundred sheep. The many hundred spears, and quivers full of arrows, which the natives had thrown away in their flight, were brought to the camp and burnt, after I had selected what I wanted to add to my ethnological collection.

Toward sunset a drove of about four hundred fine donkeys, and about thirty milch cows, wandered up to the villages, whereupon I sent my boys to choose forty donkeys and three good cows to add to the caravan. By the end of the second day after the fight, the Arbore had brought all the animals I had ordered, glad enough to have been let off so easily.

Retaining only about sixty pieces of cloth and twenty pounds of beads, I gave all the rest of my trading goods to the Arbore, which quite compensated them for the loss of their animals, but not of course for the loss of their prestige as warriors. They expressed much surprise that I had treated them so liberally, and promised in future to be friends with any white man who visited their country.



ARBORE WAR HAT.

They told me that north of them were very many little tribes that went about quite naked, and were continually fighting one another. The Arbore, therefore, could only give me guides as far as the Burle, as they would be killed if they got outside of their own country.

We left the Arbore on June 24, after having given them all my old donkeys, twenty-two in number, and a few tired camels and oxen. One of my two remaining mules had to be shot, and the other one I left behind, as it was suffering so much from the effects of fly-bites. We marched for five hours very slowly toward the Amar range. There were many stops on account of the mass of cattle we were driving. Cattle which are unaccustomed to being driven will mass together and attempt to crush through the bushes on each side of the path as they are urged along, but it is astonishing how quickly they learn to follow one another in Indian file, no matter how long the line may be. Two Watu Boran acted as guides, and one of these began to make love to Ola. I oversaw the two flirting and was highly amused at the manner in which they went about it. It consisted almost entirely in tickling and pinching, each sally being accompanied by roars of laughter. They never kissed, as such a thing is unknown in Africa. The guides told me that the Arbore had inhabited the country north of Lake Stephanie for many hundred years, and that only recently the Boran had come among them.¹

At the end of the second march we arrived at the villages of the Burle, situated near the foot of the high Amar mountain ranges. Each village was surrounded by a stone wall three feet high, which in turn was surmounted by a strong bush fence. There were many little hamlets and

¹ They have a distinct language of their own, a few words of which I wrote down in my diary. Their country is called Wando.

isolated huts scattered about the mountains, each dwelling having its own strong little enclosure. Altogether the huts numbered about five hundred. Many of the Burle visited the camp, along with their chief, Arshal Shada. The people were of medium height and rather slim, with pinched, ugly black countenances.

The chief exercises the divine right of a king, his people believing that he can bring about whatever changes in nature he wishes by sacrificing animals to some strange power with whom he is in league. They use the term Wak, but they do not believe there is only one Wak, or God, who governs all creation, but think that every leader has a Wak of his own. For instance, they inquired of Dodson whether my Wak was not much more powerful than the Wak of the Arbore, as the latter had been so badly beaten. The two Watu guides now left us, taking Ola along with them. She said she was going to marry the one I had seen flirting with her, and appeared quite calm at the prospect. I asked her if she intended going through any marriage ceremony, to which she replied that the only preliminary formality she would have to undergo would be to fight the bridegroom's two other wives.

CHAPTER XXI.

I DISCOVER A TRIBE OF UNDERSIZED MEN AND WOMEN — THE DUME ARE SUSPICIOUS — DESCRIPTION OF THE DUME PYGMIES — AMUSING INCIDENTS — THE KULI AND OTHER TRIBES — WE CANNOT CROSS THE ARO MOUNTAINS — THE BUNNO — EXCITING TIMES — A DIFFICULT ASCENT BEFORE US.

LEAVING the picturesque villages of the Bura, with their friendly inhabitants, we wound our way in an easterly direction high above the valley of the Galana Amara, till we rounded the northern point of the Amar range. Here I made the acquaintance of probably the most interesting tribe in Africa. I had been told by the Bura that I would meet a "doko" tribe just beyond them; but I had heard the name "doko" used so many times by different tribes as an expression of contempt for their neighbors that it did not convey any meaning to me except that the Dume were probably very poor. But to my surprise I found that the Dume were a race of pygmies.

We had just camped at the foot of some tall mountains, when some naked little warriors appeared on the heights above us. After much calling and signalling on our part they ventured one by one to come down to us. They were very suspicious; but finally about twenty of them threw down their bows and arrows, and picking up some grass walked into camp. I could hardly restrain my boys from laughing aloud and frightening away the visitors, they were so small. A few of them carried a small piece of sheepskin, which they wore usually around the neck

but sometimes around the waist. Its chief use was as a matting to lie on. With the exception of this one bit of skin, which was never in the same spot two hours in succession, none of the Dumes wore any clothing whatever. They were remarkably uniform in size, reaching about five feet in height. I did not measure them accurately, for fear of frightening them. Their chief characteristics were a black skin, round features, woolly hair, small oval-shaped eyes, rather thick lips, high cheek bones, a broad forehead



DUME WARRIORS.

but not remarkably receding, and very well formed bodies. Their hips were rather broad, and the lumbar vertebrae, curved a little farther forward than is usual, even in black races; but these features were not very prominent, and did not disfigure them, as they do in the case of the Hottentots. They reminded me very much of a dog in the expression of their eyes,—sometimes timid and suspicious looking, sometimes very amiable and merry, and then again changing suddenly to a look of intense anger. They had no beads of any sort, but had managed to possess themselves

of some zinc, which they had flattened and cut into disks to ornament their faces. The septum of the nose was bored, and from this hung a zinc plate that almost concealed the lips. Two more disks covered the ears, while a fourth hung over the forehead, suspended from a leather band that encircled the head.

It was hard to make out what their features were like, so concealed were they by the four large glistening plates, that reflected the rays of the sun like so many mirrors. Those that could not afford to wear zinc, substituted pieces of ostrich shells instead. Their woolly hair is worn as a single puff running from behind forward, in the middle line of the head, the rest of the head being shaved. Three or four of them wore only bracelets made of ivory, and little brass pendants from the ears ; but, except what I have mentioned, they possessed no ornaments whatever.

Pygmies, I believe, inhabited the whole of the country north of Lakes Stephanie and Rudolf long before any of the other tribes now to be found in the neighborhood ; but they have been gradually killed off in war, and have lost their characteristics by inter-marriage with people of large stature, so that only this one little remnant, the Dume, remains to prove the existence of a pygmy race. They are probably the aborigines of Africa, and the more or less isolated specimens of pygmies met with by Stanley, Emin Pasha, Harris, and others, are of a common origin with the Dume. The Dume are five or six inches taller than the pygmies described in various books of travel, and are much darker in color, so that I am led to believe they are not quite pure-blooded ; but their uniformity in size disproves the idea that they have degenerated in recent years, which is the case with the Bunno and one or two other tribes which I shall mention later on. Formerly they lived principally by hunting, and they still kill a great many ele-

phants with their poisoned arrows; but by the gradual encroachment of other tribes, most of the game in the neighborhood of the Dume has been driven away. The Dume now number about a thousand souls, and are wretchedly poor. They raise a few sheep and goats, and cultivate ten acres of land in the Galana valley; but being one of the lowest races in the scale of humanity, their wants are few, and they do not try to improve their condition.



DUME ORNAMENTS.

The Bura had provided me with a guide who could speak a little Galla, as well as the language used by the Dume, and it was from him that I got my information concerning the pygmies. About ten years ago the Dume were conquered by the Bura, and have since been under the rule of the Bura chief, Arshal Shada, so that they have lost much of their former war-like spirit.

I saw only half a dozen spears among them, and about as many small round leather shields; but they all carried

bows, and quivers full of poisoned arrows. The first lot of Dume that came to the camp seemed as if they expected to be murdered, and it was a long time before I could get them to trust me.

When I tried to photograph them they rushed out of the camp in terror, and every time I lit a match, or did something they could not understand, they rose to their feet and moved a little way off. After a while, however, I managed to put them in good humor by showing them picture books, and giving them saccharine tabloids to eat, and by presenting them with sheets of tin, and helping them to cut out disks for their noses. I verily believe the next visitor will be astonished at the brilliant appearance of these pygmies, after the many presents of tin I made them. As their confidence increased, more and more of the little people came into camp, and remained until it got quite dark. When Dodson and I sat down to dinner, our visitors crowded about us in great astonishment.

They said that we were not men at all, but some strange creatures that had fallen from the sky. One of them asked my interpreter why we had washed our hands, as the black skin had already been scrubbed away from them; and another insisted on tasting some jelly, which he thought was blood, and must consequently be very good.

I learned that the Dume had no idea of morality whatsoever, the young men and girls indulging in promiscuous intercourse with one another. Later on in life they settle down and keep the same wife for a considerable length of time. I was very anxious to see the women, but I never gained the confidence of the Dume sufficiently for them to allow any of their better halves to approach the camp.

The day after our arrival among the Dume, we marched about five miles north, and camped close to the most

northern of the villages owned by these little people, thirty-five miles above Lake Stephanie.

About thirty of the Dume accompanied us on this march, partly out of curiosity, and partly, I believe, to see if they could not get me to give them some more tin. One of them sold me a handsome ivory bracelet, which he said belonged to his wife, for about a farthing's worth of tin sheeting. I climbed up the mountains near the camp to have a look at the village, and got a glimpse of two women about a hundred yards away. They were black, and wore only a narrow strip of leather around the waist. I could see also that they were a little smaller than their husbands, and that their abdomens were very prominent; but as they fled as soon as they caught sight of us, I can tell nothing more about them.

The huts were small, conical-shaped affairs, made of bent sticks and covered with grass. There was nothing in them except a few very crude wooden vessels.

On June 28 we circled around the northern end of the Amar range, and camped by an artificial pond that lay in a big valley to the west. This pond had been dug by the Kuli, a small tribe who inhabit the country adjacent to the Dume on the northwest. To the northeast of the Kuli live two tribes called the Mali and the Borali; to the west, the Dime and the Aro; while the valley to the south is inhabited by the Bunno.

All these tribes are agriculturalists, and also own sheep, goats, and a very few cattle and donkeys, but no camels. After leaving El Dere we saw no camels, except a half-dozen owned by the Tertala Boran, until we got to the lower end of Lake Rudolf. All the Boran went about quite naked, used poisoned arrows, and were continually at war with one another. The Mali and Borali had the reputation of being the most ferocious, and kept

their neighbors continually on the alert to withstand their attacks. The people were black, or else of a very dark brown color, and among them were to be seen many undersized men and women. The majority of the Kuli and Bunno were only about five feet two or three inches in height, and were undoubtedly of pygmy origin, but there were also many good-sized individuals among them. Their bodies were slender and well-formed, but their features were small and irregular. They possessed no brass beads or ornaments of any kind, except a few ivory bracelets.

Not knowing the value of ivory, they sold me several good-sized tusks for a few pennies' worth of small beads. Brass did not seem to please them, but they would have sold anything they possessed for the cheapest kind of red and white beads, had I wished to stop among them and trade. It was most difficult to get any information, as none of the natives understood Galla, and all communications had to be made by signs. The Kuli were at war with the Bunno, but several of them agreed to accompany us on our next march as far as the first villages of their enemies. It would have been impossible to cross the Aro mountains with our camels, so the next thing to do was to travel down the valley of the Bunno, and then try to cross the mountains lying between the Amar and Lake Rudolf. The Bunno were prepared to make war upon us when we entered their country. About a hundred of them stood in our way, armed with javelins and bows and arrows.

They carried a kind of shield that I had not seen before, long and narrow, and neatly made of ox-hide. Three sticks placed longitudinally, with cross-pieces at either end, formed the frame-work of the shield, the leather handle being attached to the central bar.

The warriors decided not to attack us, however, after we assured them by signs that we intended to do them no harm. But it was very amusing to watch the behavior of the Kuli who had accompanied us, when they beheld their enemies. They danced about, grunted like pigs, and assumed the most ferocious and laughable expressions. One of them actually had to be held down by my boys to keep him from rushing upon the Bunno. They begged me to fight their enemies, but I only replied by giving them a little present and sending them back to their people on a run.

On June 30 we marched nearly four hours along a tug, and camped at the foot of the mountains, at the southern end of the Bunno valley, where there was running water. Throngs of natives came to see us as we passed along. Some forty or fifty of them were continually with us at the head of the caravan. After we had camped the natives also visited us in the most friendly manner until late in the afternoon, when a little row occurred.

Dodson, who had walked a couple of hundred yards down the river-bed with three of my boys, came rushing back to camp with the news that he had seen a large war party of natives approaching. There were about a hundred unarmed Bunno in the camp at the time, with whom I was having a friendly chat, when about thirty natives, fully armed, walked directly up to us, and one of them commenced a kind of war dance in our midst. Some of my boys immediately got back of him and grabbed his shield and bow and arrow; whereupon he and all his companions fled. I now fired a few shots at a tree to let the natives see what sort of things the rifles were, and it was most amusing to see their fear and excitement.

Although told previously that we would not shoot

them, and although they had asked to see the rifles do their work, they became terrified at the noise. Some dropped on their faces on the sand, and many of them ran away. The warriors had indeed intended to come to the camp and attack us, but they halted on hearing the firing. About a hundred of them stepped out from the bushes and stood a hundred yards away from us in the river-bed. My boys begged me to fire at them, but I merely took a few shots over their heads, which was quite sufficient to

make them scamper in all directions. The Bunno about the camp tried to persuade me that the warriors did not intend to attack us; but I gave them to understand, by pointing first to a spear and then to a rifle, that any native with arms seen near the camp would be shot.



BUNNO SHIELD, SPEAR, AND ARROWS.

A strict guard was kept all night, but no native appeared until early in the morning, when many of them visited the camp unarmed, and apparently very friendly. After sending two parties of men out to hunt for the best path over the mountain, I started out to do a little collecting and surveying, much to the terror of the natives. Every time Dodson or I shot a bird they would drop on their faces; and if I set up my camera or theodolite, not a Bunno would be seen for some minutes. This day was the anniversary of our landing at Berbera. We had been one year in Africa, and had not yet

reached Lake Rudolf; but still I was more than satisfied with the work I had accomplished up to this time.

We had forty miles yet to go, and there were many obstacles before us in that forty miles. The boys I had sent out returned with the news that the only paths up the mountain were difficult even for men to climb. The attempt had to be made, however, so we started at once making a path for ourselves. The whole of the next day was spent at this work, and by evening the path had been nearly completed. We had some excitement in camp caused by the same party of warriors that had come to fight us on our arrival. These savages were afraid to attack us, but they were always in the bushes not far from camp, watching their opportunity to play some tricks. They tried to catch a young boy who was watching cattle, and whom they thought was alone, but the lad ran back to where some of my Somalis were sitting near at hand. My men fired over the heads of the natives, frightening them away, and then sent for me and asked me to give them permission to fire on any armed native they saw, as their positions were becoming too dangerous. I at once ran down to where the cattle were, with the intention of shooting any warrior I saw, but only a lot of unarmed savages were to be seen.

Suspecting that they had concealed their weapons in the bushes, we started on a search, and succeeded in finding about fifty bows, and quivers full of arrows. There must have been several hundred warriors continually near our camp. Dodson discovered natives stalking him, with evil intentions, no doubt, several times. When my boys returned from working on the road, they brought with them two natives of the Amar tribe, whom they had met on the top of the mountain, and who appeared very friendly.

From the signs they made we understood there was no path whatever from their villages to Lake Rudolf, and we should have a hard time cutting through the bushes, or wading down rivers. On the afternoon of July 3 the work of the road was finished. It rained heavily during the night, but fortunately the natives did not attack us.

CHAPTER XXII.

THE FOURTH OF JULY IN AFRICA — AN UNFORTUNATE OCCURRENCE — NATIVES ATTEMPT TO LOOT US, USING BEES AS ALLIES — THE AMAR ARE AFRAID TO ATTACK US — TWO PRISONERS — WADING BAREFOOTED DOWN A RIVER — “SLEEPY EYES” AND “ZEBRA HIDE” GET INTO A TIGHT PLACE — BEAUTIFUL MONKEYS — AFTER WADING FIVE DAYS, WE LEAVE THE RIVER.

A DISGUSTING affair occurred as we were leaving camp in the morning. Dodson and I had gone ahead of the caravan, feeling delighted that we had left the natives in peace, when we heard many shots fired in the direction of the camp. Hastily turning back the camels that were leading, we rushed to the camp, to find that the natives had tried to run away with three of our cattle, and that my men had fired on them, killing two. This was most disappointing news, as we had tried to hold friendly relations with the Bunno; but when we had done all in our power to win their friendship, and they then proved treacherous, the penalty must be on their own heads. The natives of Africa are generally, however, “unconscionable wretches,” as Livingstone would say when he was put out by them. Being continually on the lookout for attack was not pleasant, as it prevented in a great measure collecting and shooting; and besides this, a sense of security, a feeling that in all probability we should be alive a week hence, would have been a welcome change for us. We had a rough tussle with the camels to get them up the pass, although all their loads were carried by my boys.

Many of the Amar were to be seen about the mountains, but we could not get them to make friends with us, although the two that we had in camp over night seemed to try their best to make their countrymen do so. Dodson and I and a few boys stationed ourselves at convenient positions to guard the pass.

The camels reached the summit first, and after being loaded were started off across the undulating plateau, with a strong guard, to find a place to camp. They were followed closely by the cattle; but the sheep and goats, numbering over two hundred, did not get along fast. There were a number of beehives, made of hollow logs, suspended among the trees, and to keep away thieves at night, sharp-pointed stakes were driven into the ground at the roots of the trees, so that any thief sliding down the trunks would get transfixed. One of these beehives was knocked down by the natives just in front of the sheep, and of course the bees caused a panic among the animals, so that they fled in all directions.

Everything was in wild confusion for some minutes, as the natives were fast driving away the sheep. I sent the ten boys who were with Dodson and myself to help the five Somalis with the sheep. It was very interesting to watch the chase in the valley below us. The Somalis are wonderfully good runners, and it was easy for my boys to catch the natives. Two of these they took prisoners, while the rest left their booty and ran. Dodson and I kept firing with our Winchesters at any native we saw with an animal; and though they were too far off to hit, the bullets striking close to the thieves saved many a sheep. Fortunately none of the Amar were killed, and we managed to recover very nearly all the sheep and goats; but it was a long time before we reached the caravan. We had only seventeen rifles with us, and the natives watched us closely; so we

were heartily pleased when, late in the afternoon, we reached camp, after a long day's work without any food, and full of excitement. This was the Fourth of July in Africa; and what a Fourth it had been, with plenty of guns fired! I still had with me six quart bottles of champagne, that I had been keeping in case of sickness; but one of these must certainly be opened on the Fourth of July, and the American flag hoisted! Abdulla cooked us an excellent dinner, and later in the evening some of the boys entertained Dodson and myself to a Somali dance.

The moon came out brightly, and as I sat outside my tent, late into the night, smoking cigarettes, and thinking of my good friends at home, and of the youngsters with their fire-crackers, I was suddenly aroused by the sound of a calf calling its mother. The natives had evidently been afraid I would kill the two Amar prisoners I had with me, and had brought the calf which they had stolen close to the camp. The little animal was soon with its mother inside the zareba, and now there remained but three stolen sheep that had not been returned. After seeing that the sentries were attending to their duty, I fired one shot from my elephant-gun to wind up the "Fourth," and then went to bed to enjoy a sleep that is known only to those living in the open air.

The next morning we marched south for an hour and a half along a dry tug, until we came to a rapidly flowing stream about twenty yards wide and from six inches to two feet in depth. I forced the two Amar thieves to walk ahead with me, tied close to each other by a rope around their necks, but they insisted that there was no road whatever for us.

The stream was flowing southwest, and evidently emptied into Lake Rudolf; and the jungle on each side of it

was so thick that it would have taken weeks to cut a path through it. Our only course, therefore, was to wade down the river and trust to luck. It was most disagreeable work now, wading for five hours, and getting the animals through narrow canyons in which the stream formed deep rapids. Dodson and I were obliged to walk barefooted, as our boots were giving out; for, although we had taken many pairs along with us, we had had to tramp so much in the rain and over rough mountains that we had worn out almost our entire stock of foot-gear.

We tried to ride camels, but as none of my animals were trained for this purpose, we had a sorry time of it, getting thrown into the water or run away with among the bushes, and we soon took to our legs again. At one time we found ourselves confronted by a mass of boulders, so that we were obliged to dig away the bank of the stream and cut a path through the forest. As soon as the first man had got through this with his axe to the next bend of the river, which he came to luckily only a couple of hundred yards farther on, we drove the cattle after him, so as to make a wider path for the camels. The camels managed to wade through the water without any difficulty, owing to their large flat feet, but the donkeys and cattle kept floundering about and getting stuck in the mud at every turn. We were afforded considerable amusement at one time by one of my boys, named Mohammed, disappearing suddenly in a quicksand nearly up to his shoulders. Mohammed, who was called "Sleepy Eyes," because he used to go to sleep while standing upright, became now, for the first time in his life, thoroughly awake; but his position was not dangerous, as there were many hands to help him and the quicksand was not very broad.

We were just having a good laugh at "Sleepy Eyes'"

expense, when Saet, an enormously fat boy, with thick skin, who was called "Zebra Hide," rushed up to assist his comrade, and got himself stuck in the sand. Both "Sleepy Eyes" and "Zebra Hide" were soon rescued, but it was a tussle pulling out "Zebra Hide," owing to his great weight. We camped at mid-day in a grove of duhm palms, in which there were troops of the most beautiful monkeys I have ever seen. I did not know at the time to what



species these monkeys belonged, as I had never seen them in any museum; but I found out afterwards that they were a species called *Colobus guereza*. They were large, and covered with thick black fur, with a long fringe of white hair hanging down the sides of their bodies, and their beauty was further increased by a long black tail tipped with a white brush that waved gracefully to and fro as they jumped about the tree-tops. I found out on my return home that few specimens of these monkeys have reached the civilized world, but that they have been seen by

travellers in Masailand, where the skins are highly prized by the natives.¹

Four more days we continued wading down the river. The country was nearly flat, but sloping gradually toward Lake Rudolf. There were no inhabitants whatever in the dense forest that overran the land, and no paths excepting those that ran at right angles from the river, and which were made by elephants. I saw several elephants in the distance, but I did not go after them, as my feet were rather sore from walking barefooted. The stream flowed in the main southwestwardly; but, though we marched six hours daily, there were so many curves in the river that we only made a mile an hour in the right direction. Many times we saw troops of Colobus monkeys, and also another species of monkeys, larger than baboons, with tails about sixteen inches long, and covered with gray fur.

¹ The Masai wear strips of the skin of the Colobus monkey, with the white hair attached, around their knees and ankles, and are said to have given as much as an ox for a single hide.

CHAPTER XXIII.

LAKE RUDOLF IN SIGHT AT LAST — I INDULGE IN A LITTLE SENTIMENTAL WRITING OCCASIONALLY — NEAR RUSIA — A RIGHT AND LEFT SHOT — SENEGAL ANTELOPES — LAGOISI, THE MASAI — THE RUSIA ARE AFRAID OF US — A MORNING'S SPORT — NATIVES IN THEIR WAR-PAINT — ON LAKE RUDOLF — REJOICINGS — THE PEOPLE OF RUSIA — AN AMUSING CEREMONY — I START ON A JOURNEY TO THE NORTH — ELGUME VILLAGES — AMONG THE MURLE — MURLE WOMEN BADLY DISFIGURED — I GET AN ATTACK OF FEVER, AND AM CARRIED BACK TO RUSIA.

ON July 10 we left the river, as the country became more open, and marched directly toward the northern end of Lake Rudolf. At the end of the first three hours we saw a long white strip of water gleaming far off in the distance. This was a sight that appealed to the heart of every man in the caravan. It was Lake Rudolf. With one accord the boys rushed up, and, crowding around me, burst into a loud "Hip-hip, hurrah!" led by Dodson. As I looked upon the bright sheet of water, it seemed to me like a roll of parchment awaiting me, — a roll such as I have received on the completion of a course of study.

This journey had been the roughest allotment of work I had yet given myself. But who is there that does not look back with the greatest delight on months of work, finally crowned with success! The pleasures stand out prominently; the worries and labors and fatigues are reduced to mere incidents, that interest rather than pain the mind. Yes, Rudolf was in sight, and I felt that I had attained in a measure the greatest ambition of my life, —

that of being able to add a little drop to the sea of knowledge possessed by civilized mankind. I will quote a few lines from my diary which I wrote at the end of the march. "I indulge in a little sentimental writing occasionally, as the hot sun pouring down on my tent, and the effects of eating prodigious quantities of meat and rice (always the result of a long march if the food can be obtained) cause all sorts of ideas and longings to rise in my mind.

"The boys are all asleep just at this time,—it is best to wait until the sun falls a bit from the meridian before taking sights, or tramping about,—why not enjoy a little *dolce far niente!* One thinks of the great world far away—how circumscribed it seems. Nature appears so immense out here that the greatness of civilized mankind dwindles by degrees in one's estimation the longer the separation from the artificial continues. But however the absolute greatness of that world of engines and pretty white girls may be, I long to be a part of it once more. I long to see my friends in America and England, even if I do not envy them the regular lives they lead. To return to the dry, barren hills on which we are camped: we have many sick men and sick camels, and a day's rest will be most beneficial to them. I shall remain here tomorrow, and send men ahead to hunt a road and water for our next march."

Dodson and I both had a little fever the next day, probably owing to our having walked so much in the water, and a good rest was most acceptable to us. A party of boys that I sent out to reconnoitre reported that they could find no water, although they had gone a long way ahead; so I had to send back to the river we had left and have the water-barrels filled. Two more marches brought us to the long strip of water that extends from the northern end of

Lake Rudolf fifteen miles through the marshes. I saw many giraffes and zebra *grevii* on the last march, and just as we were stopping to camp two Waller's gazelles dashed out of the bushes and stopped about fifty yards ahead of me. As they were bucks, I fired a right and left at them, and dropped them both. The next instant two more of the same animals passed close to me, but I did not fire. There were many herds of Senegal, or Topi, antelopes (*Damaliscus jimela*) in the plains by the water's edge. These are a large red species of hartebeest, with horns about a foot and a half long, curving regularly backward. This was the first time I had met with this species of hartebeest, but I found them afterwards extending all the way down to the mouth of the Tana River. Our camp was only three miles from the northeastern corner of Lake Rudolf, and quite near some villages of the Rusia, a tribe of natives discovered by Count Teleki.¹

Very early in the afternoon a native visited us, who turned out to be a Lygop,² or Masai, living with the Rusia. We were delighted at this, as both Haji Idris and Karsha could speak Masai, and we should now have no difficulty in making the Rusia understand us.

The man did not seem the least afraid of us when he saw our rifles and the two white men, as he had heard of Count Teleki's expedition, but walked directly up to the tent and greeted us with a smile. He was abso-

¹ These people are called Reshiat by Count Teleki, but the more proper way to call their country is Rusia, after the manner in which the natives pronounce the name themselves.

² The Lygop are the forefathers of the Masai, and were at one time the most powerful black race in Africa; but in recent years a civil war arose among them, in which the sub-tribe, called the Masai, came off victorious. The Lygop were obliged to flee from their country and settle among tribes far distant from their home; but they were so much superior in intelligence and in strength to the other savages that many of them obtained important positions in their new homes. The Lygop and Wa Kuafi are the same people, and are related to the Burkeneji and Sambur.

lutely naked, and had his ears bored in Masai fashion, so that pieces of wood more than an inch in diameter could be thrust through the lower lobes. He seemed most willing to help me, said his name was Lagoisi, and that I could call upon him to do as I liked as long as I was at Rusia. Many Rusia eyed us from a distance, but only two could be persuaded to approach.

They were very much afraid of us, and even after Dodson and I had gone out and killed three hartebeests for their benefit, they did not appear to trust us. Lagoisi left us at sunset to inform the Rusia of our peaceful intentions, but returned early the next morning before we had started for the corner of the lake.

He suggested my shooting some meat for the Rusia, and as I was only too glad to get an excuse for hunting, I started off with four boys after hartebeests. From Count Teleki's description of the Rusia, I thought there could be no possible danger from them, so I told Dodson to go ahead with the caravan and leave me behind.

The first animal I came upon I struck squarely in the chest with a ball from my .577 as he turned towards me. He staggered away as though he were going to drop, whereupon I told Karsha to run after him, while I took a shot at a second hartebeest, which was standing one hundred and fifty yards away. The first shot I missed, but the second hit the animal in the hind-quarters, breaking his leg. He got a long way ahead of me while I was following him among the bushes, and presently I saw a striped hyena running after my quarry. I fired at the hyena and killed him, but no sooner had he fallen than I saw about twenty hyenas pursuing the hartebeest and pulling him down. The hyenas let me get within fifty yards of them before they stopped their fiendish work of eating away the hind-quarters

of the wounded animal while he was yet alive. The hyenas did not flee, but snarled so ferociously that I thought it best to fire at them at once.

My boy Abdi, who alone had followed me, vowed that the beasts were about to charge us. My first shot struck one in the shoulder and sent him away howling; but the rest still seemed on the point of charging, a few of them actually coming toward me growling. Two more shots, that knocked over as many hyenas, caused the rest of the pack to turn tail; but they did not get away before a fourth had received a bullet somewhere in his body that sent him whirling around biting himself. Imagine my surprise now in seeing the hartebeest get up and start to walk, after pounds of meat had been torn from his back. A bullet for the hartebeest and two more for a couple of wounded hyenas made my score for the first half-hour's hunt five hyenas and two hartebeests.

Two more of my boys now came up, and told me there were many natives sneaking about the bushes in their war-paint; but I did not pay much attention to this news, as a lion had just started roaring about a mile off. After we had gone, however, a short distance toward the lion, a crowd of natives appeared, armed with spears and bows and arrows, and painted from head to foot in red and white stripes. They probably were prepared for war, but did not wish to begin it themselves; for when I pointed to where the dead hartebeest lay, they immediately ran off to it and began cutting it up. Still it is difficult to know what a native intends doing, and as we had at the time only three rifles with us, and a small collecting-gun, we did not feel absolutely safe. I hunted for the lion for a while, but as my boys were constantly vowing that they saw natives creeping after

us, I soon turned toward the camp. We passed many groups of warriors, but none of them would venture within eighty yards of us. As we approached the camp we were met by some more of my boys, who had come to protect us. They said that not a native would come near the camp, but that they stood in crowds some distance off, arrayed for war.

I found the camp pitched on a sandy bluff, about eighty feet above the lake, and very near to where Count Teleki had rested for a month in 1888.¹ It was now July 14,

¹ Lake Rudolf does not appear like a long sheet of water lying in an abrupt cut or fissure in the earth's surface. On the contrary, it is very much spread out, except at its southern end. It lies in a shallow sort of basin in an open country which slopes very gradually towards the Tana River and the mouth of the Jub, from its southeast end, and which is continued in a northwesterly direction as an almost level plain to the valley of the Nile. The river Nianam cannot be said to flow in a valley for a distance of more than a degree north of the lake; but it pursues a very even course through a flat country cut at rare intervals by low narrow mountain chains running toward the southwest. The fall is only four hundred feet in seventy geographical miles. The southern end of the lake, however, marks the rather abrupt termination of the great mountain system extending north from Mount Kenya, while twenty miles to the northeast the highlands running down from Abyssinia begin to disappear rapidly. A narrow mountain chain is continued up from the south along the western shore of the lake to near its northern end, and this is the only thing that relieves the monotonous and flat appearance of the upper lake region. There are few trees, and the open grassy plains seem to vie with the water and the barren rocks in producing a most disagreeable glare as long as the scorching sun is above the horizon.

I found the lake to vary in depth from two to twenty-five feet: its elevation is over twelve hundred feet above sea-level. There was no broad sandy beach, as Count Teleki had found in 1888, for there had been plenty of rain a little while before our arrival, and the water was high up among the bushes. It is one hundred and thirty-seven English miles in length, and twenty-five miles wide.

About midway down the eastern shore you pass a little group of mountains called Longendoti: and just to the north of these is a large bay, where some three hundred Elmolo, or fishermen, are living on little islands near the shore. The main body of the Elmolo, numbering about seven hundred souls, are living on the mainland not far from Mount Kulol. There are many people of Rusia who have been obliged to support themselves entirely by fishing since the cattle disease which some four years ago devastated the country, and hamlets of two or three huts are common along the lake shore. I will mention that, although these people live entirely on fish, I did not see a case of leprosy among

1895, and we had been more than one year in reaching our goal. In a conversation with Prince Boris, that gentleman had repeated to me a remark he had made to Count Teleki: "I think the ghost of Prince Rudolf has been guarding that lake since you discovered it. How many have tried to reach it, and none succeeded!" My boys crowded around me now, making many jokes about the ghost of Prince Rudolf, and shouting to their hearts' content. One by one we induced the Rusia to come to us; and then, after an arrangement had been made to hold a conference with the chiefs in the morning, the feasts of the day were prepared. The delight of my boys knew no bounds when I told most of them I would double their wages for the month of July, and that they could expect ten rupees a month extra pay during the return journey.

A large fat ox was killed, and the feasts of the Fourth of July were repeated, including a bottle of champagne for Dodson and myself. The Rusia were not in the same thriving condition as they were when discovered by Count Teleki. All their cattle had been carried away by disease,

them. The only two cases of leprosy I saw on my journey were among people who never touched fish, — one at Bari on the Shebeli River, and the other in the Boran country.

Passing on to the south, you get into very rough country. At the southwest end of the lake there is an active volcano, and all around are evidences of volcanic action. You have to make your way over great masses of volcanic *debris*, and over a country cut up by countless fissures, where there is scarcely a blade of grass.

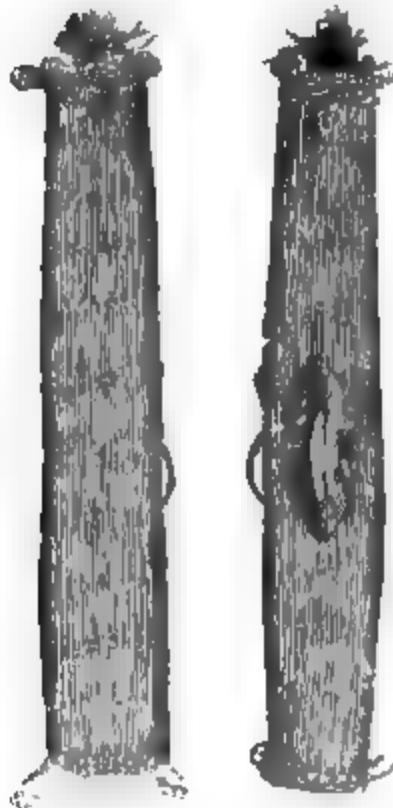
And now we come to Mount Kulol, the most remarkable mass I have ever seen. It is nearly six thousand feet high, and cracked from top to bottom. The fissure is only about twenty yards wide, and when you are at the bottom of it you can scarcely distinguish individual trees at the top, so high are the vertical walls on each side of you.

There is one island near the lower end of the lake, ten miles long, and which contains many craters, just as if it had been intended as a gigantic sieve for the products of the terrific subterranean combustion that has cracked and tossed the earth and rocks about into chaotic masses all over this section of the country.

and the Arbore had stolen most of their donkeys. Their neighbors on the north, the Murle, had also dealt them the last blow, so that now there is scarcely anything left of the once rich and powerful tribe. There are not more than five hundred inhabitants in Rusia, and these can scarcely keep body and soul together on the little durrha they raise. Many of them have been obliged to resort to fishing as a means of earning their living; and a still greater number have crossed the river Nianam, and have settled in a Rusia village on the northwestern corner of Lake Rudolf, in the country of the Elgume.

On the morning after our arrival, all the leading men of Rusia came to us bringing a sheep, and offering to do all they could for us. Our Masai interpreter, Lagoisi, intimated that the Rusia expected me to pour some milk, or other liquid, on the back of the sheep, before killing it, to show my good will; so it occurred to me that I might anoint the animal with a solution of permanganate of potassium and water.

The natives eyed me curiously as I dropped a tiny tablet of the red salt into a basin of water and produced a beautiful claret-colored liquid; and when I added a few drops of lime-juice to this, and changed the liquid to a golden color, they could not resist expressing aloud their astonishment. I do not think the Rusia ever had any religion until they had been beaten by the Arbore; but the Arbore had impressed upon them the existence of a god called Wak, who always assisted the Arbore chiefs.



RUSIA SHIFLD.

Now the Rusia were delighted that we had overcome this Wak, and said they should no longer fear the Arbore.

The sheep, after being washed with a solution so carefully prepared, was at once slaughtered and cooked. The liver was cut up and the pieces eaten by the Rusia and the two Europeans, so that thus we became brothers.

The Rusia were naked, very dark in color, and resembled much the other tribes that I had seen since leaving Lake Stephanie, except that they were tall. The women wear a plaited skirt of leather, but the upper part of their bodies is usually naked.

The young men often paint themselves with red or white clay, and mass their hair in a thick bag of mud that hangs well over the back of their necks. This head-dress is further adorned with one or two long reeds or ostrich feathers, curved forward over the head and waving to and fro with every motion of the body. The ears are bored in many places, and small copper rings inserted, while a narrow strip of brass sometimes hangs over the chin, fastened in a hole made through the lower lip. The men, strange to say, are circumcised, but this is not the result of Mohammedan teachings, as, previous to Count Teleki's expedition, no Arabs or traders of any description had ever visited them.¹

The Rusia weapons consist of spears, bows and arrows, and a curious ring of iron, sharpened like the blade of a knife, which they wear around their wrists. I will not go into further particulars regarding these people, as they have been to a great extent already described by their discoverer. It was Count Teleki's intention to explore the country north of Lake Rudolf, but he was deterred, owing

¹ A couple of years ago a Swahili caravan, from Mombasa, passed along the eastern shore of Lake Rudolf, and traded for ivory, as far north as the Kēre people, on the river Nianam.

to the hostile attitude of the natives. Lieutenant von Höhnel, however, visited the Buma, a tribe living on the river Nianam, fifteen miles from Rusia.

I was most anxious to explore the river Nianam, supposed to be the Omo, and to visit the very many tribes which, according to the Rusia, inhabited the country to the north; so after a rest of three days at Rusia I started off for a two weeks' trip with a few of my boys. To give a better idea of the difficulties we encountered, I shall refer to my diary for a few days.

"*July 19.* Our little caravan, consisting of twenty-nine Somali boys, the interpreter Lagoisi, and myself, with a few sheep and donkeys, started at eight o'clock in the morning for the *terra incognita* to the north, Dodson, with Haji Idris and all the rest of my boys, remaining at Rusia. There were several delays on account of the donkeys losing their loads, but at three in the afternoon we reached the northern end of the long arm of Lake Rudolf that I before described, and camped near two small villages belonging to the Elgume. The men of these villages were naked, while the women wore a small piece of leather about eight inches square suspended from their waists in front, but quite insufficient for purposes of decency. The Elgume inhabit a large tract of country west of Lake Rudolf, called Turkana.

"I did not expect to find any Elgume here, but these were simply some poor natives who had wandered from their homes in Turkana, and who, together with a handful of the Murtu, had taken up their abode near the river Nianam. They resemble the people of Rusia, except that they are more thickset, and their features are more of the negro type. They raise a little durrha, and get what meat they can by hunting. Vast herds of hartebeests come to the water every night to drink, and many of them are

speared by the natives, who conceal themselves in the long grass. Except near the water, the country north of Lake Rudolf is very open and flat, as far as the Aro Mountains, which approach the river Nianam forty miles north of the lake. The plain on which we are camped has lately been flooded, and the mosquitoes are most annoying.

“July 23. I have been suffering so from fever that I did not write in my journal since the 19th. On July 20 I journeyed farther towards the Murle, after having passed a very bad night. I did not feel well when I started, and before I got to camp I was so weak and feverish that I had to be held on the donkey. The first Murle villages we reached, after a march of five miles, were a considerable distance from the river. The Murle inhabitants fled on our approach, but soon a couple of them came to us, repeating their friendly words of greeting, ‘Na, na,’ and conducted us to a camping-place in the thick forest by the river. I was so sick the whole afternoon that I could not rise from my cot. No other natives visited us, and the two that at first came to us soon departed. All night long the Murle kept up a loud noise in the bushes near the camp, and seemed on the point of attacking us, so that my boys had to keep a sharp lookout. In the morning, however, a deputation of old men arrived with a sheep, and made their salutations.

“Many other natives, including both sexes, soon flocked into camp. The women were disgusting looking, as their lower lips were pierced, and distended by a piece of wood two inches long and three-quarters of an inch thick. You saw nothing of the lower lip except a thin piece of mucous membrane that encircled the wooden plug. To add still further to their ugliness, the two front upper teeth were

extracted, and their tongues usually projected from their mouths, so that they talked with a lisp. If it were not for this disfigurement, the women would probably be good looking.

"I saw several young girls with good figures and regular, oval features, who were just beginning to have their lips distended. The only apparent reason why the Murle mutilate their women is that they want to keep them from

being stolen by their neighbors.

I had eaten nothing since I left Rusia two days before, and I felt too unwell to march, so I had my boys carry me back part-way toward the lake to the camp of the previous day. We found that an elephant had been through the camp in our absence, and had tramped down the zareba. Besides the Elgume, we were visited by some of the Buma, a tribe living just south of the Murle and visited by Lieutenant von Höhnel.

"I was too sick to pay attention to anything that went on around me, so I thought it best to return to Rusia and make a fresh start when I got well again.

Fortunately I was able yesterday to ride most of the way back on a donkey. I am feeling fairly fit again to-day, and shall in all probability make another attempt to-morrow to explore the valley of the Nianam. From a bit of high ground near the Murle I obtained an extensive view of the country to the west



MURLE WOMAN

of the Nianam, and could see no traces whatever of any second river flowing into the northern end of the lake, as laid down in Count Teleki's map. To make me doubly sure on this point, I have asked Dodson to investigate the subject in the canvas boat."

CHAPTER XXIV

A SECOND ATTEMPT TO JOURNEY TO THE NORTH—WE ARE CAUTIONED AGAINST MEETING HOSTILE TRIBES—LARGE MURLE VILLAGES—WANDO-ROBBO—A SMALL LAKE—THREATENED ATTACK BY THE KĒRE—RED TAPE—HANDSOME NATIVES OF KĒRE—NETTING CATFISH—BUKI—LARGE TREES—ARRIVAL AT GUMBA—THREE HARD DAYS' WORK MARCHING THROUGH AN UNINHABITED COUNTRY WITHOUT GUIDES—MASHES AND BLACK FORESTS, ANNOYING WEEDS AND DENSE JUNGLES.

“JULY 24. Early this morning I set off with twenty-nine boys, Lagoisi, and ten donkeys,—half of the latter loaded, the other five in reserve. My boys did not like to make this trip, and I do not blame them, as I hardly enjoy the prospect myself of the rough work ahead, having had so much of it. The Rusia and Murle both advised me not to attempt to go through the hostile tribes to the north, saying that with such a small force we should certainly be cut to pieces. It was the work and not the danger which my boys minded; they had rushed about so much through all sorts of unknown places, and been in so many dangerous positions, that they had forgotten what fear meant. We marched twenty miles, and camped just to the east of the Murle villages we had previously visited.

“*July 25.* After marching two hours, this morning, we came to large villages of the Murle that I had not seen before, situated on the banks of the river. Three of them contained about two hundred houses each, and besides these there were several smaller villages on the western

side of the river.¹ After leaving Murle, we passed around a bend in the river, across a large tug coming from the east, and at eleven o'clock reached the Wandorobbo² village of the Kēre.

"Near this village the river forms a little lake nearly a mile square, around which we were obliged to thread our way through dense bush. Leaving the village with its few miserable inhabitants, we passed along the bank of the river, which is twenty feet high and undermined in places by the water, and then after three hours' hard work cutting through the bushes, we came to a field of durrha more than a mile square. Here we came suddenly upon a war party of the Kēre, on their way to the Murle, who rushed back to tell their chiefs as soon as they saw us. We pitched our camp about six hundred yards from a couple of very large villages of the Kēre, as we did not wish to go too near and excite the inhabitants; but before we got the zareba cut, many hundreds of natives were dancing about us, looking very gay and warlike. On their heads were caps made of plaited reeds, and embroidered with white and blue beads in the form of disks. Several red and white ostrich feathers waved from each cap, and many iron bells dangled from the knees and ankles of the warriors.

"They were all naked, excepting a few who wore leopard-skins over their backs like the Arbore. Their spears are beautifully made, with gracefully tapering shafts and long necks to the blades, very light for throwing, about six feet long and with a small point. The shields are long, and

¹ The Murle must number about eight thousand souls. They raise much excellent durrha, and own many goats and sheep, but no cattle. The river here was eighty yards wide, forty-nine feet deep, and flowing at the rate of four and a half miles an hour.

² I use the Masai term "wandorobbo" to designate the poor of any tribe, who live by hunting and fishing.

either made of leather or basket work, like those at Rusia. About one third of the men are circumcised.

“They are very handsome, about five feet seven inches tall, well proportioned, dark brown or black in color, and with bright, intelligent features. I succeeded in getting speech with half a dozen warriors through Lagoisi, who knew a few words of the Kēre language, and pretended that I simply wished to hunt elephants in their country. They wondered why we should have come, if not to make war. I spoke about ivory, and they seemed to think this some excuse for our journey; but the shauri was long and tedious, the war-like youths crowding around us and dancing the whole time, and making our position seem very serious for us.

“The older men had to force back the younger ones from attacking us several times. There was much noise and show, but before the day closed we received promises that the chiefs would come very early in the morning with a sheep of peace. I should have liked to avoid any delay in the morning, but it would not have been good policy to leave without first killing and cooking the sheep, if we wished to avoid war and obtain a guide. I urged the Kēre to come early, but they did not like the idea of our moving so fast,—not unnaturally, as natives never move fast except in war.

“*July 26.* All night we kept up a continual noise to show we were awake, and at the first sign of day we were glad to see the chiefs appear with the sheep. Long shauris. Much patience needed. At eight o'clock the sheep had finally been killed, and its fat and liver cooked and distributed. One guide was also provided, and the chiefs promised us a second as we passed the villages. The donkeys were packed, and I felt sure of a start. All rose and marched,—the chiefs in front; but



THREATENED ATTACK BY THE KERF



just as we came to the first village, down dropped these worthy old men on their knees to hold another conference. Three times we started, moved a hundred yards or so, and then sat down again. At nine o'clock we finally bade good-by to the chiefs and got under way. We did not follow the river at first, but kept to a trail through the bushes for the first three miles.

"After this the road was more open, and we passed many little clumps of houses surrounded by durrha fields. I had an opportunity of seeing many of the Kere women. They are not as good looking as the men, but many of the young girls had graceful figures and attractive features. They wore a short leather skirt, with occasionally a bib attached, and were not disfigured in any way excepting by a few necklaces of beads, and brass bands around their arms.

Their hair fell naturally down their backs, and was kept in place by little bands of leather that encircled their heads. Some of the Kere men twist their hair around a stick, that points directly upward, or else forward over their brows. Others mix their hair with clay, and form it into a hard cake in the shape of a cap; and into this mass is stuck feathers, long reeds, or anything that comes to hand. I was surprised to find some of them wearing zinc disks suspended from their ears like the Dume. All of the Kere



KERE PILLOW AND BELLS FOR ANKLES.

have a remarkably sleek and well-fed appearance, owning many sheep and goats, and raising enormous quantities of durrha.

“ They vary their diet also by catching catfish in hand-nets fastened to a pole with a hoop at the end. Five large villages belonging to these people were passed before we came to the Buki, a tribe five miles north of last night’s camp. The Buki are an offshoot of the Kēre, and only number about six hundred individuals. Here we rested for about an hour under a large tree called ‘hammer’ in Somali, while I took tiffin and made some observations with my theodolite. There were many ‘hammer’ trees in this country, some of them sixty feet high, with enormous branches reaching nearly to the ground, and with trunks six feet in diameter.

“ They bear a green, bean-like fruit, which tastes like vinegar, and which is cooked by the natives with their meat, or eaten raw. The leaves of the tree are very fern-like. We exchanged the two guides we had procured at Kēre for two of the Buki people, and I then proceeded to the villages of Gumba, that lay another five miles farther north.¹

¹ Most of this march was through dense jungle, which necessitated our stopping to chop many times. The country on the opposite side of the river appeared to be much the same as on the eastern side, — bushy, with here and there small durrha fields, and hamlets of the Kēre people, and about every two miles covered with dense forests. The Murtu, or Muritu, inhabit the few low mountain ranges that are to be seen rising out of the great open plain far to the west, but they do not come close to the river. I was informed that a division of the Murtu, called Kodo, live about the southwestern end of the mountain range that runs parallel with the river Nianam, fifteen miles from the people of Gumba ; and I was also informed by my guides that there was a good path along the western shore of the river, which was used by the Kēre and Murtu in trading with one another. I would have liked to cross the river and follow this path ; but the only canoes to be had were small dug-outs, and I did not wish to spend much time in making rafts to transport my donkeys. We found the Gumba people inhabiting a village of about one hundred and forty houses, situated on a bluff above the river. They are also an off-shoot of the Kēre, and are extremely poor. I was surprised to find them suffering much from venereal dis-

The Gumba were very friendly, but disappointed me very much in their tales of the country ahead. I tried many times to get information about tribes living to the north, but the Gumba emphatically denied the existence of any human beings in that direction, and they refused to give me a guide, as they said no one of their people had ever followed up the river. 'There were nothing but dense forests and deep marshes.' The plain through which the river passes assumes here the aspect of a valley, which becomes more and more hemmed in toward the north by the Aro Mountains on one side, and by a chain of mountains about four thousand feet high on the west.

"*July 27.* This has been a day of toil for us. The Gumba gave us no guides, and only laughed at us when we started at sunrise for the North. After going about half a mile we found ourselves in a marsh, and gradually getting beyond our waists in the water, so that we had to return nearly to the Gumba and make a large detour to get on the other side of the water. We soon struck a trail that led through the dense bush to an old deserted corn-field belonging to the Gumba, but could not get beyond this, and were obliged to retrace our steps half a mile and then find another path that led to the river. We then passed along through a tall dark forest, until we again came to a marsh and were obliged to go back over our road again. There was now no path at all, but it was necessary to simply force our way through bushes and over marshes and all kinds of bad country that would not let us accomplish a mile an hour.

"At noon we came to the river, filled the two water-bar-
eases. Among the Abyssinians venereal diseases are rampant, but after leaving Ginea I saw scarcely any evidences of these diseases among the many tribes I visited until I reached Gumba. All the Gumba people practice circumcision, differing in this respect from the Kere people, only about a third of whom are circumcised.

rels we were carrying, and started on again. To avoid the bushes we went some distance back from the river; but here we were confronted by miles of high dry weeds, that scattered the contents of their seed-pods all over our faces and down our backs. The thermometer stood 105° in the shade, and in the sun the heat was scorching. We camped late in the afternoon about two miles from the river, after having made only five geographical miles the whole day in a direct line from the Gumba. Just opposite the camp I can hear distinctly the sounds of a waterfall.

“July 28. Yesterday's work has been repeated. After pushing our way up and down through all sorts of country, we came to a small stream flowing into the Nianam from the Aro Mountains. The first two hours were through tall reeds, with the dry seeds sticking to our hot and wet bodies and producing much irritation. After we had all that we could stand of this we made our way to the river, as we supposed; but instead of this we came to a stream¹ flowing into the Nianam from the Aro Mountains.

There were no tracks of elephants or other animals. The bushes were impenetrable, and outside of them were fields of coarse thick grass as high as our heads. We had to go through the grass. Finally, after three and a half hours on the march, we found some elephant tracks, and then our journey became a little easier.

We marched along these trails, parallel to the tributary, until eleven o'clock, when I had tiffin by a little ditch running into the tributary. After an hour we continued again through dense jungles, until we were stopped by the tributary, which now ran at right angles to us. After considerable difficulty we managed to get the donkeys across

¹ This tributary was twenty yards wide, four feet deep, and flowing at the rate of four miles an hour.

the stream, and then, after marching a short distance the other side, camped just as it was getting dark.

"On the march we passed a herd of Coke's hartebeests, the first we had met with since we left the Boran country. I shot at one of these animals, and the blood that flowed from his mouth afterwards proved to me I had mortally wounded him; but just as I was about to follow up my quarry my boys called to me that a rhinoceros was charging them. After making a vicious run toward the caravan for a few yards, the rhino suddenly changed his mind, and made off before I could run up and get a shot. We were much surprised that the beast did not continue his charge, which he commenced with such vim and noise. I then tried to find my wounded hartebeest; but as my boys needed pushing, I had to abandon my game after a very short search. It was all I could do to get my men to go farther, as they had had so many difficulties to overcome.

"*July 29.* The whole of this morning the work of the last two days was repeated, but in the afternoon we followed a game path that led through the darkest forest. It was most arduous creeping through tunnels in the under-brush of a forest of tall trees, where it was so dark at times that we could not distinguish a man's face twenty yards away. We often went close to the river-bank, and here we found the footprints of three natives, probably bee-hunters. Occasionally we were startled by troops of Colobus monkeys, who threw sticks at us. The forest was full of mosquitoes, and the atmosphere was damp and cold, and a most unhealthy place to spend the night in. At four o'clock there seemed to be no chance of our getting out of the forest before night. On and on we went, having to stoop most of the time to get through the tunnels, and it began to look serious when another hour had nearly passed and there were no signs of the trail lead-

ing us out of this wilderness with its loathsome stench of decaying vegetable matter and its clouds of mosquitoes. At five o'clock, however, we found ourselves getting clear of the forest, and just at sunset we discovered a small opening in the bushes large enough to camp in."

CHAPTER XXV.

EXPECTING A NIGHT ATTACK — WE FIND OURSELVES AT LAST IN A THICKLY POPULATED AND FERTILE COUNTRY — THE FRIENDLY AND INTERESTING MELA — A HUNDRED MILES NORTH OF LAKE RUDOLF — COUNTRY TOWARD THE NILE AND TOWARD ABYSSINIA — MOUNT SMITH — THE RIVER NIANAM — A SECOND TRIBUTARY TO THE NIANAM — RETURN JOURNEY TO RUSIA — ASTONISHMENT OF THE GUMBA AND KÈRE AT SEEING US AGAIN — THEY BEG ME TO PERFORM MIRACLES FOR THEM — BACK AGAIN AT RUSIA — DODSON'S REPORT OF HIS JOURNEY IN THE CANVAS BOAT — HYENAS TRAPPED BY DODSON — REFRACTORY DONKEYS — JOURNEY ALONG LAKE RUDOLF — TAME ZEBRAS AND HARTE-BEESTS — THE ELMOLO — BIRDS AND FISHES — SHOOTING RHINOCEROSES, HIPPOPOTAMI, AND WATER-BUCK — TELEKI VOLCANO.

MY boys were much disheartened when at the end of the third day's march from Gumba, no native had been seen. They urged me to go back to Rusia; but I gave them to understand that such a thing was out of the question, and then, after making a few notes, rolled myself in a sheet of muslin and fell asleep at once, in spite of the mosquitoes, which bit through everything. But I was not destined to get much rest. At ten o'clock I was awakened by Salan telling me that natives were coming. In an instant I had my Winchester in my hand, and was attending to the camp's defence. It seemed that the natives were surely on the point of attacking us. War-horns were blown from many points ahead of us, and the bushes seemed to be full of yelling warriors. All night after this we were on guard, and it was with the greatest feeling of relief that we saw the first bright red rays of

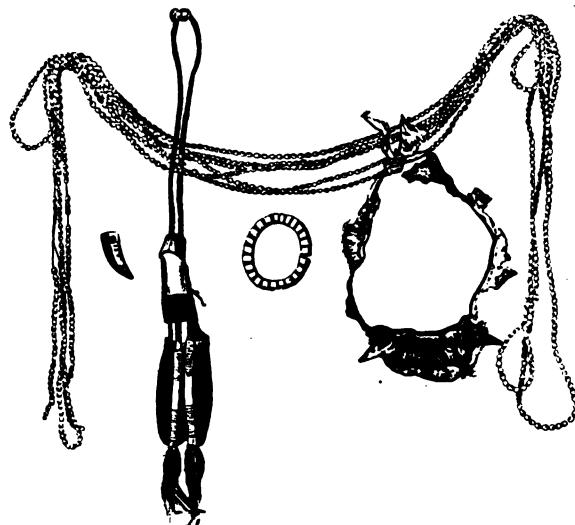
light appearing above the eastern horizon. Many villages were in close proximity, and the path we were on evidently led toward them ; so, loading the donkeys, we started off toward the north once more.

Constantly fearing an attack, we kept as close together as possible, one behind the other. Half an hour's march through the bushes brought us to some durrha fields. 'Ten to one we should have to fight, as the natives had shown themselves so war-like during the night. What sort of men these people we were approaching might be—their name, numbers, or habits—was totally unknown to us, and among us there was probably no man able to speak their language. Lagoisi was in absolute terror, and had to be prevented by force from running away. With eyes peering into every bush, we threaded our way, now through large durrha fields, and again through bush, till we found ourselves at the commencement of a lovely open valley where the ripe grain was waving gently to and fro, and many goats and sheep were nibbling at the soft green grass, and noises from a score of villages reached our ears. Two old men and a woman were waiting to receive us.

After a long shauri, conducted by signs only, and some loud calls on the part of the old woman, crowds of warriors emerged from the cornfield, and casting aside their weapons advanced to make peace with us. Everything went smoothly ; we found these natives, who called themselves the Mela, the most sociable and hospitable black people we had yet seen. They were black in color, and some of them only about five feet one or two inches in height, resembling very much the Dume.

The majority of them were about five feet six inches in height. The men were naked, but wore sandals, while the women covered their loins with small pieces of goat-skin.

Their bodies were slender, eyes small, features irregular and ugly, and more of the negro than the Hamitic type. The men were uncircumcised, and neither sex was mutilated in any way, excepting in a few instances where the men had large plugs of wood passed through the lobes of their ears. The Mela possessed neither beads nor ornaments of any description that were not of their own manufacture. About one native out of ten had an iron ornament of some kind, and when I asked them where they obtained



the iron, they pointed toward the country of the Murtu. Of other ornaments made by themselves they had a great variety,—neat little snuff-boxes made of ivory, and suspended around their necks; bracelets made from the tusks of elephants and lion's teeth; wooden combs with various feathers attached; and belts made of rows of red seed. Turtle-shells were attached to the belts in some cases. Many of the youth wore pieces of skin taken from the heads of goats, with the horns attached in the shape of crowns, the horns pointing upward from their foreheads and making them look quite like devils.

I noticed that some of the feathers they wore in their hair were obtained from the new species of turaco I discovered near Sheikh Mohammed. The rope and cord, which they made from the fibres of a species of hemp, could not be excelled in neatness or strength, and their baskets were models of skilled workmanship. Their weapons consisted of a slender spear with pear-shaped blades, bows

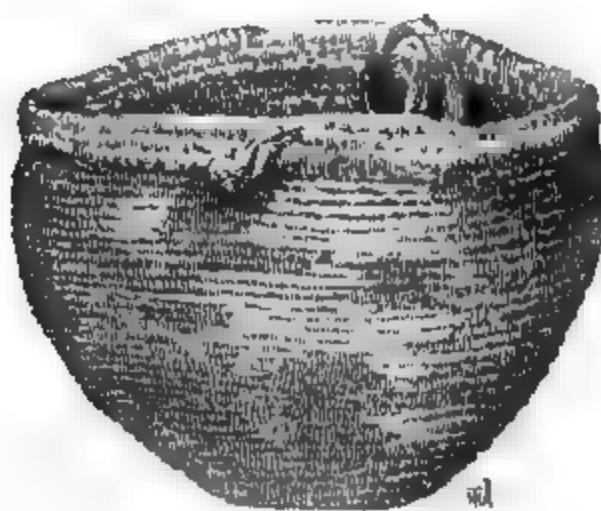
and poisoned arrows, and small round shields made from giraffe-skin.

They raise a poor coffee and tobacco, but much excellent durrha, and also possess many sheep, goats, and chickens, a few donkeys, but no cattle. The houses are well built, and consist of a thatched perpendicular

wall, built in a circle, with a single very small opening and a high peaked roof. The Mela speak a peculiar language of their own, and it was very difficult to get any information from them.

A second tributary of the Nianam, about the same size as the first one we crossed, passes through the valley of the Mela, and as soon as the Mela had made friends with us, we were shown a place on this stream where we could wade across, and where the natives had also built a bridge. This bridge is made of boughs, lashed together and suspended to the branches of two large trees which grow on opposite banks of the river. Our boxes and bags were taken across the bridge, while the donkeys were led across the ford, the Mela assisting us greatly.

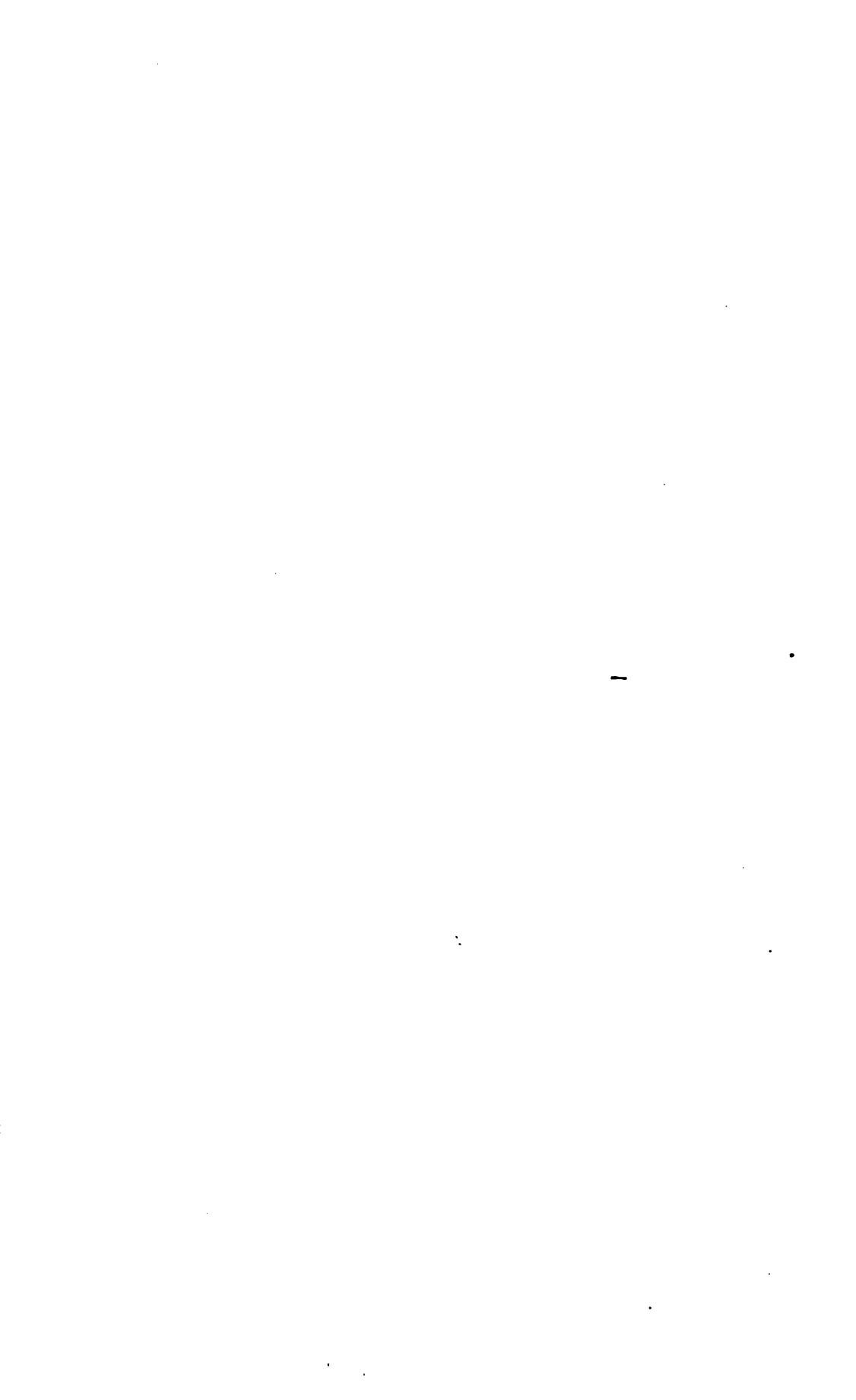
We had now marched a hundred miles above Lake Rudolf, so I determined to ascend the northern end of the



MELA BASKET.



NATIVE BRIDGE.



mountain range that had been running parallel to the river Nianam on the west since we left the Gumba, and make some observations. After reaching a grassy hill-top seven hundred and fifty feet above the Mela, I was enabled to get an extended view of the surrounding country. The river Nianam, now only forty yards wide but very swift, cut its way at this point through the mountain chain before described, and lay just below and to the west of us. I could follow its course with my eyes for twenty miles as it flowed down from the lofty mountains of Kaffa. From my observations I found that we were sixty-seven geographical miles north of Rusia.

To the east and to the north was a wet mountainous country, with peaks rising to the height of nine thousand feet. One splendid group of mountains, thirty-five miles to the north of us and nine thousand feet high, I have named after myself. At the base of this mountain group I could see many fires burning, made by a people called Mega, according to the information I received from my friends the Mela. I had previously been regarding the river Nianam as the river Omo, but now I altered my opinion in regard to this. We were at the time at the western extremity of that great watershed around which we had been circling for so many months.

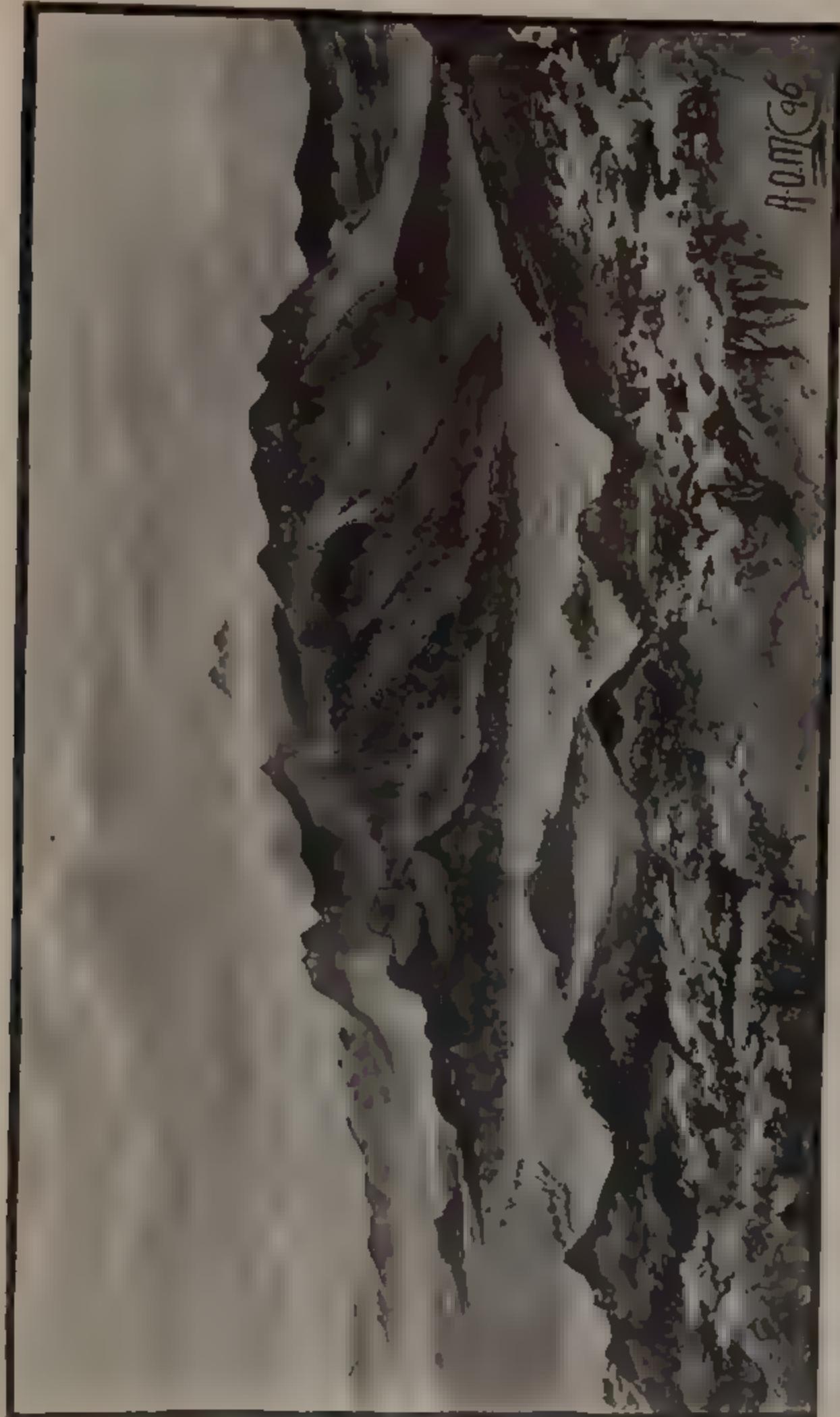
It does not require a great extent of mountainous country to produce a river the size of the Nianam as it passes Mela. I believe the origin of the Nianam to lie in those lofty plateaus, one hundred and twenty miles north of Lake Rudolf, and in the country laid down on the maps as Kaffa. I think the river Omo must flow into the Ganana or Jub. The Mela had never heard of the word Kaffa, nor of the existence of the Abyssinians, so I do not think that Kaffa extends very far to the south of Abyssinia, or that the Abyssinians inhabit the country much below

Bonga. The Mela pointed out to me the countries inhabited by the following tribes, according to the positions in which I have placed them on my map: Kobi, Mala, Aro, Galo, and Murtu. I got a clear view of the country to the west nearly half-way to the White Nile. It was nothing but one great expanse of grassy desert, with only two low mountain chains visible.¹ There was scarcely a bush or tree on the plains, except by the edges of a few dry river-beds.

After taking observations from many points, I returned in the evening to the camp on the hill above the Mela, and found natives there with ivory, coffee, tobacco, ground durrha, chickens, and eggs for sale. They were delighted to get any kind of beads whatever, and sold everything at a ridiculously low price,—a tusk weighing twenty pounds, and a chicken, costing the same (that is, about a penny's worth of small red or white beads). I bought a good supply of food for the return journey, as well as many ornaments to add to my ethnographical collection.

The Mela crowded around the camp all the evening, and carried on an almost unintelligible conversation with us by means of signs. Like most other Africans, they were extremely afraid of my scientific instruments; but what raised their curiosity to the utmost was my striking a match. I believe I could certainly have gone among them unharmed after this wonderful exploit, as they were too overwhelmed with awe to have dared to touch me. As it was, the inhabitants of the various Mela villages must have numbered about nine thousand souls, so they could have murdered us without any difficulty had they wished to. Next morning we bade good-by

¹ One mountain chain to the southwest comes from a point seventy miles distant from the Mela, and terminates thirty miles to the northwest. Another range runs east, with nearest point sixty miles distant. Both of these mountain ranges are from three to four thousand feet high.



ONE HUNDRED MILES NORTH OF LAKE RUDOLP

1896

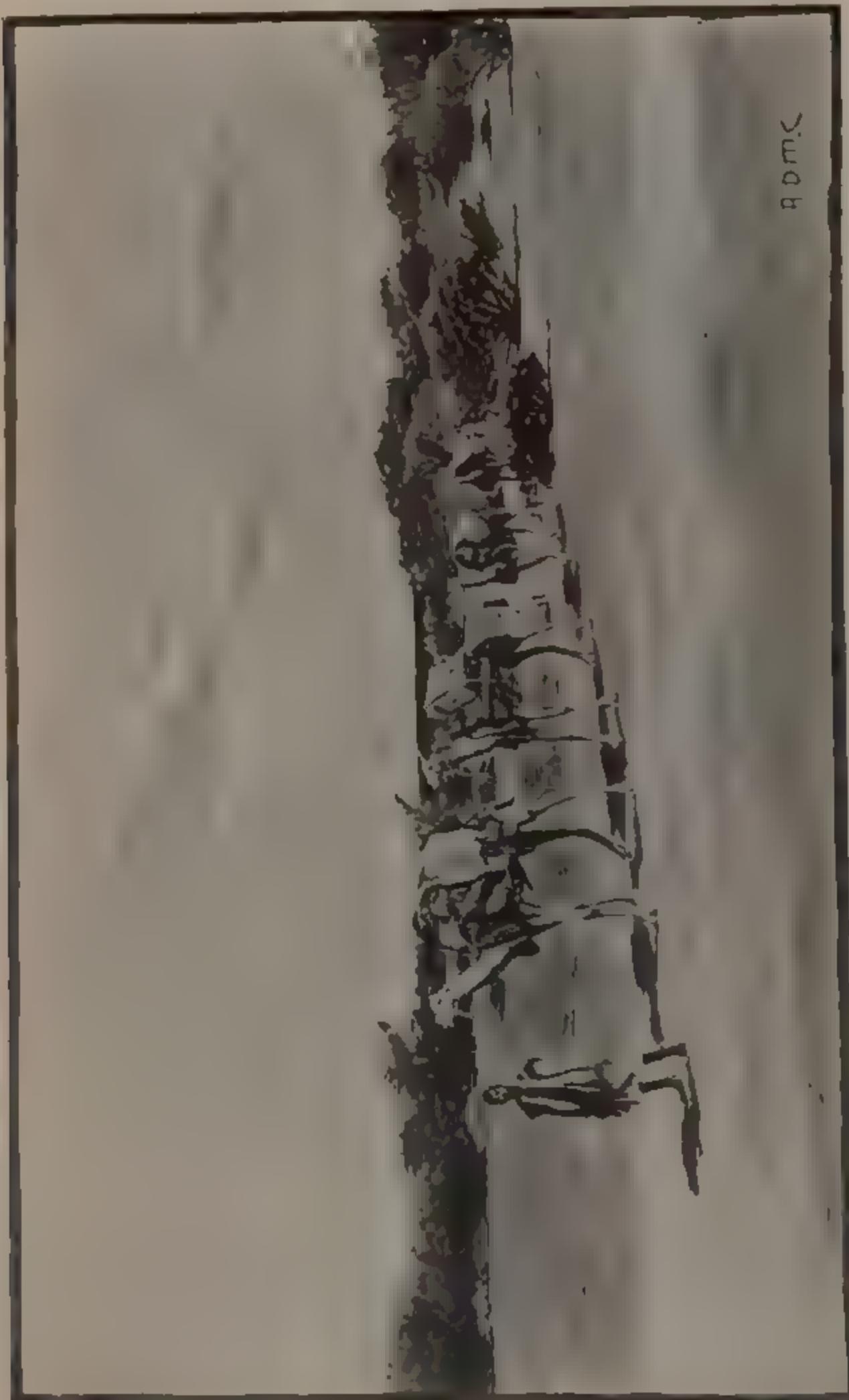
to our friends and started on our return journey to Rusia. Going back was much easier than coming, since we had made a path for ourselves to some extent; but the return was especially easy for me, as I let the boys go ahead now and push the bushes away, whereas previously I had been obliged to lead and urge the men to follow.

After two days' fast marching we arrived at Gumba. The natives were utterly dumfounded on seeing us again; many of them dropped on their knees and tried to take my feet in their hands as they implored me to work some charms for their benefit. They begged me to do something that would drive away the birds from their cornfields, and also to keep the Murtu from attacking them. It was difficult to escape from doing something to impress the natives without confessing to weakness, so I gave one of them a piece of paper, telling him I hoped it would benefit him. Whereupon I was immediately besieged by all the assembled crowd shouting for prescriptions. They wished to give me sheep for the bits of paper, but I did not accept their offers. And so it was at Kere and all the villages we passed on the way to Rusia. The natives showed no end of astonishment, and would have done anything in their power for us.

At last, on August 5, we joined Dodson and the rest of the caravan at our old camp by the lake. I found several of the boys in the camp ill with fever, but Dodson was in good condition, as he had been taking exercise every day. He told me he had made an excursion in the boat far around the northern end of the lake, and had satisfied himself that there was no river there except the Nianam. He had amused himself in the evenings by setting a spring gun for hyenas, and had bagged seven hyenas and five foxes in this way.

Some of the donkeys which we got from the Arbore gave my boys much trouble in trying to train them to carry loads. The camp was very lively with about a dozen of these donkeys at a time plunging and kicking about, trying to rid themselves of the old empty boxes that were fastened on their backs. As there was not time on the journey up the Nianam to work out the numerous observations I took on the way, I was kept very busy at Rusia for three days at this work; but on the 8th of August we at last started on our long homeward journey, every one in the best humor. There was much stopping for refractory donkeys, so that we could only make about seven miles.

The water of the lake came far up among the bushes; it must have been three hundred yards farther inland than when Count Teleki visited it. There were large herds of zebras, hartebeests, and Thompson's gazelles grazing about on all sides of the caravan, apparently little disturbed by our presence. The zebras merely walked slowly from the way of the caravan, and then, stopping about thirty yards off, stood staring curiously at us till we had passed them. Of course there was no sport shooting these tame animals, and I would only bring down about one beast a day for food. The mosquitoes were very bad, so that my boys even could hardly sleep at night. Many boils broke out on my body as soon as I returned to Rusia, and these gave me much pain on the march. I tried riding a donkey, but found that worse than walking. When we started out on the second day's march I could scarcely get along at all, and had to be helped by two of my boys. It was necessary for me to rest often, and during one of these halts the snort of a rhino was heard close at hand. The next moment the animal walked out from behind



A.D.M.C.

ALONG THE SHORE OF LAKE RUDOLF.

a bush, giving me a good shot at a distance of only twenty-five yards. It was hard for me to steady my rifle, but fortunately my first shot struck the animal low down and just behind the shoulder, causing him to dance about for a few seconds and then drop dead on his back, with all four feet up in the air. As I could go no farther, we were now obliged to camp.

The following afternoon, however, we made another march. The natives were burning up the country everywhere, so as to attract the game, as the tender green grass which springs up on burnt ground is especially enjoyed by all kinds of antelopes and gazelles. The glare from the sun was very disagreeable, and the heat was intense during the middle of the day, the thermometer running up to 105° in the shade, while in the night-time it would be between 85° and 90° . We passed many Elmolo of Rusia along the shore, living in canoes.¹ But we saw no villages of more than two or three huts each. On our next march I rode a donkey most of the way, but I could hardly enjoy this method of locomotion, as the donkey had to be hauled along by one man in front, while another kept beating him from behind, and whenever we got among the bushes the beast would surely try to get me caught by plunging suddenly among the thorns. Although weak, I could not resist dismounting at one time and stalking two fine water-buck which were standing close to us under a tree. The larger of the two animals dropped instantly to my first shot, while the second ran away with a broken shoulder on receiving the contents of my left barrel.

As he stopped about a hundred yards away, I gave the

¹ The name Elmolo is given to those people about Lake Rudolf who live by hunting and fishing, just as the Masai name of Wandorabbo is applied to the poor people in other parts of the country.

latter another shot in the centre of the chest; but the remarkably strong beast darted away at an astonishing pace on three legs. I could not follow myself, but I sent Karsha after him, who gave him a long chase, and was finally successful in bringing him to ground, after putting two more bullets into him from my .577 express. The horns of the first animal measured twenty-two inches and a half, while those of the other were an inch shorter. They were the best water bucks I saw on Lake Rudolf, and belonged to the ordinary dark bristly haired variety, the *Cobus ellipsiprymnus*, not to be compared to the splendid specimen of the *Cobus defassa* I shot on the Galana Amara, with horns over twenty-nine inches long. There were many very pretty and interesting plants growing along the eastern shore of Lake Rudolf,—one of these (*Donaldsonia stenopetala*, Baker, *fil.*), which I found near the northern end of the lake,¹ proving to belong to a genus new to science. Whistling ducks were plentiful, which was very fortunate for me, as they were about the only food that I cared to eat at the time. Besides these there were countless other birds, such as the secretary bird, herons, eagles, pelicans, Egyptian geese, cormorants, and the lovely red-breasted bee-eaters, which were to be found in flocks, hovering in the dense smoke over burning patches of grass, and catching insects as they tried to escape from the flames.

By the 12th of August we reached a very rough, hilly country, that made marching very difficult. We were getting into the volcanic region. Camping at the end of a little bay, where the beach was stony and the water very clear, I tried some fishing, and found here the chromis which I had caught on lakes Abaya and Stephanie, and which is the best fish of the Nile in point of flavor. They

¹ See illustration A. from the Journal of Botany, 1896, tab. 355. B., tab. 355 was found by the author at El Modu, and named after Mr. Fred Gillett.



A. *Donaldsonia Stenopetala* Bak. fil.
B. *Gilletia Sepalosa* Rendle.

would average about two pounds apiece in weight, and closely resembled a black bass. We tried exploding rockets under water, but without success. Two more marches over rough ground, covered with chaotic masses of loose rocks, occasionally alternating with clear grassy plains, brought us to a river-bed flowing into Alia Bay. At this point Lieutenant von Höhnel described a little island, on which was a settlement of Elmolo; but the island, as well as the road Count Teleki took along the shore, was submerged, and we had to make a great detour, as the bay extended so far inland. I shot at the first buffalo any of us had seen up to the present time, but unfortunately there was such a gale of wind blowing from the southeast that none of my four shots took effect, to my great disappointment, as I despaired of seeing any more of these animals. There is scarcely one buffalo left out of the enormous herds that used to frequent the banks of Lake Rudolf. Shooting a gazelle and a hartebeest during puffs of wind at long range put me in a little better humor with myself, as I was discouraged at having missed the buffalo.

After passing to the southern end of Alia Bay, we came to several small bits of land, that had been cut off by the high water so as to form islands, on which were a few Elmolo huts. Dodson and I noticed many silvery white fish here constantly rising from the water. We had seen these fish before, but although we had tried for them many times near Rusia, we were unable to catch any. I tried for them now by casting with an artificial fly, and succeeded in striking a lively little fellow that fought like a brook trout. After a few minutes' play I had the fish in the boat, and soon a second one followed; but this was all the success we had. The fish weighed a quarter of a pound each, and resembled a small salmon. We tied them up between sheets of tin and put them into the spirit jars; but

in spite of every precaution the meat disintegrated in the alcohol, and there was nothing left of them when I got them to England. This was the only variety of fish that I saw in any of the lakes or rivers of which I was not successful in bringing out a specimen. We also caught some of the curious eel-like fish, *Polypterus bichir*.

Our course now led us for three marches across a point of land at a considerable distance from the lake. It was here that Count Teleki's expedition suffered so much from thirst, but we fortunately succeeded in finding water in



NEAR MOUNT LONGENDOTI.

two places near Mt. Longendoti. We saw many rhinos at a distance, and three of the beasts, which were actually on our line of march, I killed. One of these I bowled over with a single shot from the .577 express as he was charging. The animal lay on the ground about a minute before he died, uttering all the time those ridiculous squeaking sounds that would seem to belong to a guinea-pig rather than to such a large beast as a rhinoceros. Dodson also stopped a charging rhinoceros by a well-directed shot in the chest from the .577. On August 19 we arrived at a village of Burkeneji Elmolo, a little north of Elmolo Bay, containing about seventy huts.

The natives received us with every show of friendship. They lived entirely on fish, but yet they were one of the most energetic, strong, sleek, and well-nourished looking lots of people I have ever seen. The women were especially fat and homely, but the men had handsome features, and seemed the picture of grace, as, with well-proportioned bodies, they moved about the camp.

Near this spot I saw five hippopotami disporting themselves in very shallow water, from which their bodies could easily be dragged out if I chanced to kill them. The Elmolo begged me to shoot the hippos, as they had not feasted on meat for a long time. There was no cover near the animals, so I had to creep along the shore on my belly until I got within thirty yards, when I opened fire and killed two of them with shots in the head.

Eagerly the Elmolo hauled the hippos ashore, and drank the warm blood as it flowed from spear-wounds inflicted in various part of the huge carcasses.

Having engaged several Elmolo to guide us, we made two short marches to the eastern extremity of Elmolo Bay. Here we made our last camp on Lake Rudolf. My good Berthon boat, which had done me so much service, I now gave to the Elmolo, as my camels were too weak to carry it further.

Teleki Volcano, which lies at the southern end of the lake, sent up clouds of smoke, and at night a great stream of glowing lava could be seen pouring from one of the craters.

CHAPTER XXVI.

FOUR SPORTING ADVENTURES : NARROW ESCAPE FROM AN ENRAGED ELEPHANT — THE RHINOCEROSES' PROMENADE — CHARGED BY AN ELEPHANT — SHOOTING A JUMBO.

I WILL here mention four sporting incidents which happened on the journey.

NARROW ESCAPE FROM AN ENRAGED ELEPHANT.

There were elephants in the neighborhood, so I determined to avail myself of the opportunity to hunt them. Starting off with Dodson and an escort of ten rifles, we tramped for a long time through the bushes, passing many fresh tracks of elephants, but not seeing the beasts themselves until we reached a large forest of sycamores. I began to despair of finding the beasts, and was walking along rather carelessly when I saw a pair of ears flapping above a bush only a few yards away; but luckily the beast was asleep and did not hear us.

Motioning for my Somalis to get out of the way, I took my position with Dodson behind some brush only twenty yards away. I knew that from that distance I could place a bullet from my eight-bore where I wished, — that is, just a little behind the shoulder; but alas! a shot from an eight-bore, even in the right spot, is only occasionally effective when you have to deal with a large bull elephant. As soon as I fired, the elephant screamed and walked away, receiving in his side a second charge from the eight-bore, and two bullets from the .577 express, which Dodson was using.

We followed the animal, and soon came upon him again in the dense bushes. He was very near, and I could see the blood oozing from wounds just over the region of the heart.

Dodson now fired at the elephant's head, and I at his chest; but although we heard the bullets tell loudly, the beast only put up his ears and passed out of sight. Again we followed, and again found the animal in an opening in the bushes. We put four more bullets into him, causing the animal to fall this time to his knees. He got up, fell again, and then, rising the third time, walked a little farther on, his body moving from side to side as though he were going to fall. At last he stopped, and turning sideways to the path he had taken, commenced to roar loudly. I use the word "roar" as more nearly expressing the sound made by an elephant when maddened by pain than the word "trumpeting," but the noise is like the rumbling of a trolley-car running at full speed. We could not see more than twenty yards along any of the paths in these bushes, as they crossed and recrossed continually.

It was certainly dangerous business shooting in the dense jungle; but there stood the magnificent animal with blood dripping from his side from many wounds. The temptation was too great for me. Creeping to within twenty-five yards of the elephant, and stationing myself where the two paths intersected, I took a steady aim and fired. But what was the result? Instead of falling dead, as I had expected, the great head was turned suddenly around, and I caught the angry gleam of the two small eyes as they looked squarely at me. There was no doubt that the beast was on the point of charging. There were yards of ears coming suddenly forward from his shoulders, a trunk poised almost horizontally and raised only a little at the end, and a deep menacing sound coming from somewhere within. The whole affair was over in a second —

although it takes long to describe it—from the time the beast turned around and I fired my second charge, which I did now squarely at the middle of his chest.

There came forth a terrific sound from the elephant's lungs, and I jumped quickly aside. The bushes crashed and the earth trembled, when, like a cat in lightness but with all the force of an express train, the beast dashed at us.

In a moment I was behind an ant-hill that rose from the side of the path, only to find my boy Aden Aoule there before me, and spread at full length on the ground, having tumbled in his flight. It seemed as if the elephant were about to crush me, although I could not tell upon which side of the ant-hill he was coming. I moved a little around the ant-hill, but in so doing I made a mistake, for this was the side on which the animal was charging, and now I found myself fairly under the great head, with its long tusks pointed directly toward me. I never thought there was anything so big as that head seemed to me just then, or anything more disagreeable looking than those tusks, which I felt were about to pin me to the ground. I could only give a sudden swing around the ant-hill, and then run as noiselessly as possible back again along the very path down which the elephant had charged.

I kept dodging in and out among the bushes, and for a long time I did not know which way to turn, as every moment the elephant could be heard crashing through the bushes, first one side of me and then the other. I felt sure the animal would scent me, as he kept moving around in a circle. At times he was only fifteen yards away. So quietly did he move his great body along the narrow paths through the bushes, that, although I would remain perfectly motionless at times, I could not hear a sound except when the elephant proceeded to dance on the bushes.



I believed that Aden Auole, whom I had left on the ground by the ant-hill, had certainly been caught, and had thus diverted the elephant's attention long enough for me to get out of sight. Finally I managed to reach a tree, and I am sure that a sigh of relief escaped me when I found myself among its topmost branches. From my lofty perch I could now see the elephant walking about angrily near the ant-hill. He must have retraced his steps several times to the spot where he had first made his charge.

It was some time before I saw the elephant disappear into a distant wood, and I could descend from the tree to look up Dodson and my boys. On going back to the ant-hill I saw no signs of Aden Auole, and made up my mind that he had escaped. Finally we all got together again, and, to our great relief, found that none of us had been seriously hurt. Karsha had flung himself under some bushes, and had been struck in the side by one of the elephant's feet as it passed him in its vain attempt to catch Dodson. Although Karsha was unable to walk for a fortnight after this accident, he may well congratulate himself on his narrow escape from death.

The elephant was found dead the next morning, by some natives whom I sent out to look him up, a long way from where we had wounded him.

THE RHINOCEROSES' PROMENADE.

We camped by a sandy river-bed, where tracks of elephants, rhinoceroses, zebras, and lions were to be seen at every step. I determined to have a try for the beasts over a water-hole, so I had a little enclosure built on a high rock above the water. I took my boys Karsha and Hersi to keep watch during the night, while I made myself a comfortable bed with rugs. But there was not to be any

sleep that night. The sun had scarcely set when we were on the alert. Yes — there were distinctly the sounds of some heavy beast approaching; was it an elephant or a rhinoceros? Steadily the footsteps came nearer, and then suddenly a huge beast ran down the bank on to the broad stretch of sand in front of the water.

It was a rhinoceros, and, as the night was so bright, I could distinctly make out that he had not very good horns. He did not come to drink, but walked up and down within twenty yards of where I was, as though he had made a rendezvous here. Four zebras were the next to appear, and several hyenas. The zebras tried to approach the water, but the rhinoceros repeatedly drove them away. Now I thought surely elephants were coming, as I heard several heavy footsteps; but it was a family group of rhinoceroses. On they came, now halting, now going forward a few steps, apparently without any object. Three were full grown, and the fourth appeared as tiny as a small donkey. It was amusing to see the little one's perfect behavior. It kept close to its mother's heels the entire time, never looking to the right or to the left, but stopping abruptly when she stopped, and advancing as many paces as she did.

The scene was most interesting. This spot, which in the daytime seemed one of the loneliest places in the world, now presented a most gay appearance. Rhinoceroses, zebras, and hyenas were scattered all over the place. The country about was very bushy, and I believe this large open space answered the purpose of one of our parks. The animals were there not only to drink but to see their friends. This sort of thing kept up all night; as soon as one lot of beasts had disappeared, another came to take its place. I was so absorbed in watching the love-making and fights of the animals that I did little shooting. Only two of them drank any water, which I considered

rather strange. My boys were constantly telling me to shoot, but I would not do so for a long time, knowing that I had plenty of shooting before me, and there was little sport in shooting at night. About midnight a rhinoceros appeared that seemed to have better horns than usual. He stood for some time directly in front of me, and I succumbed to that desire for killing that does take possession of one at times. I put up my .577 express and fired. Up went the sand in all directions, and there was such a snorting and puffing as only a rhinoceros can make.

The huge beast was as active as a thin pig, and, after turning in many circles, made his way up the opposite bank into the bushes. Here there was a crash, a few snorts, and we could hear that all was over with him. I went out with my boys, and found my rhinoceros as dead as a stone. The animal had, as I had judged, a fine pair of horns.

The next beast I shot was a zebra. He had had a rendezvous here with his mate. The female first appeared, trotting straight up to the pool of water. She stopped, put up her ears, and waited like a statue for some minutes. Then there was a sound like a mule's bray, only more shrill, and out galloped a splendid stallion from the opposite direction. When his mate trotted off, he stooped down to take a long drink. We needed meat, and here was the beast to take. I put a ball into his vertebræ that settled his career on the spot.

I did not shoot for some time after this, but toward morning there came such a splendid pair of rhinoceros horns in front of my zareba that I let the owner have it in the neck. Off he dashed up the opposite hill, turned, ran amuck among the bushes, and finally fell down a bank, twenty feet high, into the river-bed. This tremendous shock was not enough, however. He disap-

peared around a curve on a run, and I was afraid I had lost him. The day broke, and I had not had a wink of sleep. Except for a short time after my shots, there had not been an instant but what some beast could be seen from my zareba. I went out with my boys to track the rhinoceros I had wounded, and found him dead, half a mile off. His front horn measured twenty-four inches around the curve. But the fun was not yet finished, for on our way back to camp we started a rhinoceros out of the bushes close to us. I fired quickly, and hit him too far back. With but a second's hesitation, he charged us like a steam-engine, and we had just time to dodge behind bushes. He kept on in a straight line for fifty yards and stopped, when I put a bullet into him which put an end to his sufferings.

CHARGED BY AN ELEPHANT.

After tramping about one afternoon in search of elephants, Dodson and I noticed one of the huge beasts walking leisurely across a broad grassy plain, and started on a run through the bushes to head him off. We had made a proper estimate of the time it would take for the elephant to reach the bushes on the other side of the opening, so that the beast and ourselves came together at the same time. As I fired at the elephant's temple, I felt sure that the animal was mine; but, although he dropped on his knees, the next second he was on his feet, and off again at a quick pace through the bushes. We followed his trail for some time along a narrow path, but we did not have much apprehension of his charging us on sight, as he had appeared so timid when first shot at. But no one ever knows just how an elephant will act.

The longer one hunts these dangerous beasts, the more respect will one have for them, the keener will be the

excitement, and the greater the caution exercised in their quest. We had just emerged from the bushes on to another opening, when there was a most terrific scream, and the elephant was almost upon us. There was nothing to do but to dive headlong into the dense bush, and then try to creep out of the maddened animal's way as best we could. It would have been folly to run back along the narrow trail, as there were no side paths, and so we were forced to undergo the sensation of expecting to be crushed every second under the elephant's feet in the bushes. The wily animal had placed himself in such a position that he could get our wind the instant we emerged from the bushes, and was evidently laughing to himself that he would have us easily. But he did not follow up his well-conceived plan with sufficient determination.

One wild dash, a couple of plunges into the bushes a yard or so on either side of the path, and the elephant walked away, uttering from time to time a low rumbling sound, apparently quite satisfied with his attempts at revenge.

SHOOTING A JUMBO.

The day after this occurrence I spied an elephant, far away from our line of march, feeding in the centre of a marsh in which there were a few low bushes and only one tree visible. The tree was but sixty yards from the animal, and in order to get a shot it would be necessary to reach this without disturbing the elephant. I could not resist the impulse to make the attempt, as the elephant had the largest pair of glistening white tusks I had ever seen, reaching almost to the ground. Taking with me only my trusty gun-bearer Aden Auole, to carry my eight-bore, while I held the .577 express, I crept cautiously along through

the open country toward my quarry. A light breeze was blowing toward the elephant from the spot where we had first seen him, so that I was obliged to describe a large circle before venturing to approach the tree. But the elephant had already scented some danger from afar. Several times Aden and I dropped flat on our bellies as we saw the enormous animal raise his trunk and sniff the air.

The excitement grew intense as we drew nearer and nearer to the tree. The elephant seemed to loom up larger and larger, and the tusks appeared longer as we came within shooting distance. At last we found ourselves behind the trunk of the tree, without the beast having seen us. But he was not to be trifled with. The elephant did not show the slightest intention of running away, but, on the contrary, kept uttering low, mad, guttural sounds, and stamping about as he scented the boys whom I had left behind. My heart beat loudly as I put the rifle to my shoulder, not knowing but that the elephant would charge directly at me the instant I fired, and being at the same time almost feverish in my anxiety to bag the noble beast,—a finer specimen of its kind than I had ever seen, or should be likely to meet with again.

At last I steadied myself to fire, and the next instant a horrible feeling of disappointment took possession of me. I had missed a vital spot in the elephant's head. The animal took a few steps forward and then backward, unable to make out the position of his enemies. Delighted that I still had a chance, I took another long steady aim, and fired; and as the report of my rifle rang out I heard Aden give a suppressed "Hurrah!" Down went the huge beast on his knees, and then gently rolled over on his side. I felt like throwing my hat into the air from joy; but I had known "dead" elephants to get on their feet again, so I

took a couple of shots at the elephant's fore legs, to make sure that if he did come to life it would be with a broken leg or two. But he never rose again. The second bullet that had sped from my .577 had hit the animal in the temple and reached his brain. What a pair of tusks he had, and what a Jumbo he was in point of size! Thirteen feet in a straight line to the shoulder, one tusk weighing one hundred and eight pounds and the other one hundred pounds, and each tusk a little over seven feet long!¹

¹ The tusks are to be seen in the Museum of Archæology and Palæontology of the University of Pennsylvania, where I have deposited them as a loan, together with a majority of my sporting trophies and my ethnographical collection.

CHAPTER XXVII.

WE LEAVE LAKE RUDOLF TO EXPLORE THE UNKNOWN COUNTRY TO THE EAST — A RISKY UNDERTAKING — MUCH SUFFERING FROM THIRST — CHARGING RHINOCEROSES WOUND ONE OF MY BOYS AND KILL A CAMEL — Mt. KULOI, AND ITS DESOLATE SURROUNDINGS — WE FIND WATER JUST IN TIME TO SAVE US FROM A MISERABLE DEATH — A LONG MARCH TO THE RENDILE — THE RENDILE — BUYING FRESH CAMELS — MARSA-BIT — A BEAUTIFUL CRATER-LAKE — “TREED” BY AN ELEPHANT — JOURNEY TO LASAMIS — SHOOTING GIRAFFES — AN AMUSING REQUEST FROM MY RENDILE GUIDE — WE REACH THE GUASO NYIRO — YUSIF SEIZED BY A CROCODILE — I AM OBLIGED TO AMPUTATE HIS ARM — — OUR LAST PLUNGE INTO THE UNKNOWN — THREE BULLYING RHINOCEROSES — CAMEL KILLED.

ON August 24 we left Lake Rudolf with the intention of passing to the north of Mt. Kulol and exploring the unknown country to the east. After a very rough march we came to a tug called Ngare Dabasch, in which there was considerable water, and camped very near Count Teleki's farthest point east. I sent the Emolo guides to search for any natives who might be living on Mt. Kulol, with the understanding that they were to return within two days.

We waited three days for the Emolo, but as they did not return we concluded that they had deserted us and that our only course would be to hunt a way for ourselves. The Emolo had told us that water was obtainable after two marches to the east; so in order to be on the safe side as much as possible, we filled our barrels with enough water to last nearly three days. I would have liked to

take more water with us, as the country we were going through looked parched and desolate, but the camels were too weak to carry any more weight. On August 28 we watered all our animals and started in the afternoon on our most risky undertaking.

No one can form any idea how rough the country was, without having actually seen it. It appeared as though oceans full of large rocks had dropped from the skies and deposited their burden in chaotic masses upon the earth's surface; and besides the mounds and hills of iron ore, lava, and volcanic *débris*, there were innumerable rents and fissures on all sides. Over such a country as this we plodded for several hours. There was scarcely a bush or a blade of grass visible, and we had the greatest difficulty in getting our camels along.

The next day the same hardships continued. The sun's rays beat down on us with relentless fury as we worked our way over the rocks from morning until night. Nor when we camped at sunset were there the slightest signs of any water in all this wilderness. Before starting in the morning of the third day, I sent out boys in all directions in search of water. We were in a very dangerous position, as our drinking-water would not last another twenty-four hours; and we were obliged to march through such a fiery furnace that our systems craved the precious fluid continually.

Haji Idris and five boys went to the left of the caravan, while others scoured the country to the right about the foot of Mt. Kulol. Idris and the boys with him were attacked by two rhinos, who came upon them so suddenly from behind a bush that they had scarcely a chance to shoot. One of the animals knocked down my boy Kimbar and then tried to probe him with his horn; but Kimbar pulled out his knife as he lay on the ground, and kept

thrusting it into the beast's nose so dexterously that the rhino soon left him.

Another of the boys did not stop running until he reached the caravan, and then shouted to me that rhinos had killed Kimbar, and probably all the other boys. Ordering the caravan to halt, I hastened toward the place where the accident had happened. After running for half an hour, I found Kimbar only slightly wounded, and was told by him that Idris and the four other men had gone on hunting for water. This incident caused over an hour's delay for the caravan, all owing to the childish fear of the boy who brought the news of the attack, and who had not gone back immediately after the rhinos had left to see what had happened to his companions. As we were returning to the caravan a female rhinoceros, with a young one beside her, dashed ahead of us in the direction of the camels.

I fired at her twice at long range, the first shot taking effect in the abdomen, and causing the beast to kick up much dust, while the other shot struck her too high up above the shoulder. The rhino could not make out where the shots came from; but she had scented the camels, and rushed madly toward them. It was not long before we heard many shots fired by the boys with the caravan, and I learned afterwards that the rhinoceros had dashed into the midst of the camels, killed one of them, and then, after going on a few steps, dropped over dead. As we continued our march the oxen, one by one, began to give out. I was obliged to shoot one of my good milking-cows and two bullocks. Night came on, and we had to camp without having seen any signs of water.

The boys now had one good drink, and they would have to trust to Providence to find any more the next day. I hope I shall never have to undergo the anxiety

and torment of the next twenty-four hours again. We started out long before daylight on the last day of August, and pushed on all day almost maddened by thirst. Dodson and I had one cup of water apiece in our flasks; but this seemed like nothing to quench the fire that was consuming us. The sun's rays, reflected by the glaring rocks, beat down on us more pitilessly than ever. Many of the men hid themselves, expecting to die. I was obliged to shoot six oxen and three donkeys. Sending boys to search for water in the deep fissure that splits Mt. Kulol in two, we made our way toward the mouth of the opening, almost without any hope for another day on earth; but just at sunset we heard the Somali song descriptive of victory, coming from almost the centre of the fissure. Our hearts gave a bound of joy, and every soul among us gave a wild cry of delight and rushed for the water. Dodson and I ran as fast as we could, holding the boys in check to prevent them from fighting in case there was a scarcity of the precious fluid; but fortunately the water was in large pools. As soon as the first boys had quenched their thirst, I sent them back with water for their comrades who had fallen down exhausted on the march.

All night long we worked hard driving up the animals through the narrow opening in the mountain, and hunting the men that were lost. One of these, named Awad Aden, was not found until early the next morning. By the greatest piece of good fortune, however, before the sun had risen much above the horizon all my boys were in camp, and not much the worse for their hard experience.

We rested by the water for three days to allow the animals to recuperate; and meanwhile my boys succeeded in finding some Burkeneji, or Masai, who were living on top of the mountain. One of them, a very old man, said he had lately come from the Rendile, a tribe who were now living

only a short distance toward the east. He pointed to a hill where, he said, the Rendile lived, and which was certainly not more than two short marches away, and offered to act as our guide. On September 4 we made a long march of nearly eight hours to a tug well out on the bushy plain to the southeast of Mt. Kulol. We could carry water for one day only; but as we had the old Masai with us, we thought we could trust to his promises of showing us water early the next morning. In this we were disappointed. We were destined to have another day of hard work; and indeed it looked as if we should have a day to regret when we continued on and on and the sun was sinking without showing us any signs of water,—sick men and cattle far behind, camels giving out, and just on the threshold of a tribe which we had heard was powerful and warlike. The old guide seemed to be in his dotage, and continually begged for water. Fortunately we were travelling over sandy, bushy plains, so that we could make excellent time. We marched fifteen hours and made thirty-five miles before we found water,—Dodson and I and a few boys pressing quickly ahead, and coming to a well of good water near the Rendile villages just as it was getting dark.

After slaking our thirst, we immediately took water back to the poor fellows who were still miles behind with the cattle and tired camels. What if the Rendile had attacked us now! But we had another enemy in the shape of thirst to fight, and we could not guard against natives. The last of the caravan did not arrive until late at night, and everything was in confusion; but the Rendile satisfied us very quickly that they were not going to fight by sending their chiefs to me with the present of a camel. I killed a rhinoceros that approached the camp about midnight. The night was clear, and it was very easy to shoot the animal as he stood about thirty yards away.

Four days we spent among the Rendile. They had camels by the thousands, and camels of a far superior breed to the Somali animal, and, what was better for us, they were anxious to sell their animals. It was fortunate that when we needed assistance most we happened upon these good people. From the Rusia I bought all the ground durrha necessary to feed my boys during their stay on the lake, paying for it with a few large carnelian beads. The sixty pieces of cloth that I had left after making presents to the Arbore were still untouched, so I managed to trade off all my tired camels, forty-five in number, with this cloth to boot, for thirty-three splendid fresh Rendile camels. These thirty-three camels, with my thirty-eight donkeys, carried me easily to the coast. The Rendile number, all told, about eight thousand souls, and with them were some two thousand Burkeneji and Sambur (Masai).

The majority of their villages were near our camp, sixty miles east of Lake Rudolf, while the rest of them lived, I was informed, between Marsabit and Mt. Koroli. They are nomads, and often wander as far as the Guaso Nyiro, a river lying eleven marches to the south.

When Mr. William Astor Chanler passed along this river in 1893, he discovered the Rendile living close to the water. Formerly they used to live along the east shore of Lake Rudolf, but they were driven away from there by the Turkana. They were attacked a few years ago by a large force of Somalis from Kismayo, under an old chief named Abdi Abrahin, but succeeded in routing their enemies, after killing the old chief. They have also been attacked twice by natives of Leikipia, but each time came off victorious. The Rendile are tall and handsome, with complexions as light as the Somalis, and strong Hamitic features. They have a language of their own, but their vocabulary contains many Somali words.

I have little doubt that they are a mixture of a tribe that formerly inhabited the eastern shore of Lake Rudolf, and the Somalis of the southeast.

We were provided with a young Rendile guide, who said he would take us first to Marsabit, and then all the way south to the Guaso Nyiro. The country to the southeast of Lake Rudolf is low, barren, and dry,—a great bushy, undulating plain for the most part, sloping gradually to the mouths of the rivers Jub and Tana. But twenty miles southeast of our camp at Rendile rises a splendid mountain group called Marsabit, and thirty miles to the northeast another large mountain called Koroli. I was informed that the Boran extend as far south as Koroli, and that about five marches beyond Mt. Koroli there is a river flowing eastward, probably into the Jub.

We left the Rendile on September the 9th, with our water-barrels well filled, as we were told that the next water which could be obtained was on the top of Marsabit. The path we followed was an old one, leading through a flat country covered with stones and pieces of magnetic iron ore; but countless animals had worn the road quite smooth. On the second day we commenced to ascend the mountain, but we did not reach the top until after three marches. I was attacked by fever on these marches, and twice had to be carried; but the cool bracing air at the top of Mt. Marsabit quickly cured me.

According to European ideas, nothing could be more charming than this Marsabit. Surrounded by a large forest, and lying at the top of the mountain, is a lake a mile square, clear and deep. The jagged walls of a crater form a semicircle about it, while from another side a broad road leads out from the forest to the open meadows beyond. The atmosphere is moist and cool. In the early morning dense clouds are swept along by invigorating blasts

of cold air, combining with the dew of night to freshen up the plants and trees. Outside the forest the view is superb. For five miles you see a series of green meadows sloping gradually downward, on which are grazing many sheep and goats; while far off to the west, beyond the yellow plain, rises rugged Kulol, and a still greater mountain below it,—Mt. Njyiro. Living on Marsabit are many Masai, enjoying themselves in the possession of large flocks of sheep and goats. In the two days that we remained at Marsabit, Dodson and I collected many rare specimens of birds and mammals, though we could catch no fish whatever in the lake. I also had some good sport with elephants.

A small reddish-brown antelope suddenly dashed by us at one time, but we could not get a shot at it, and although we searched a long time we never saw anything like it again.

On September 13 we marched fast for six hours over open grassy mountain fields, and camped by a rocky bed of a stream that had cut its way deep down between some hills. Before leaving the top of the mountain, however, I saw two elephants walk into the bushes about a quarter of a mile away. After following them for some time, I suddenly found myself within twenty yards of a huge bull. He was directly facing me, but quite motionless, and apparently asleep. There was a small tree near to me, so motioning to Dodson and three of my boys who were with me to retreat, I crept cautiously around, and hiding myself behind the trunk of the tree, took aim and fired. The elephant uttered a low, vibrating sound, and then charged straight toward me. I had just time to reach the first branches of the tree before the beast's head was almost touching my feet. How long the elephant stayed there whirling his trunk about in the air, but apparently not

knowing whence the scent of his enemy proceeded, I do not know. The seconds seemed hours to me. I dared scarcely breathe, as the elephant could easily have caught one of my legs had he attempted it. By this time I had begun to look forward to getting home safely. Before leaving Lake Rudolf I had resigned myself to being placed in dangerous positions, but now there was every hope of my being able to enjoy the flesh-pots of Egypt once more; so when this elephant was dangling his trunk about in such close proximity to me I felt heartily provoked at myself. At last the beast left me and walked away through the bushes. Getting down from the tree, I followed the elephant's spoor for about a mile, not wishing to confess to myself that I had received a great shock.

But one may rest assured that I took good care not to be surprised at close quarters. The camels had gone far ahead, so I now gave up the chase. It was late in the afternoon when I reached the caravan, camped by a little stream of water.

We saw no more inhabitants in the dry, bushy country through which we passed, nor any more streams of water until we reached Lasamis, September 16th. Here there was a spring, and near it a village of about sixty Wandorobbo of the Masai. The enormous herds of zebra *grevii*, and the numerous giraffes and rhinoceroses that were to be found about Lasamis supplied these people with food. The Wandorobbo had just succeeded in trapping a giraffe when we arrived.

The traps consist of rings of wood, to which are attached rows of sharp sticks pointing toward the center and downward. A shallow hole is dug in the center of a game-path and the wooden disk inserted. On the top of this ring rests a noose attached to a heavy rope made of twisted sinews. One end of the rope is attached to the

thick roots of a tree or bush, and the whole trap is then covered over with earth and leaves. When an animal puts his foot into the hole through the ring he cannot withdraw it without pulling out the wooden hoop, owing to the sharp-pointed spikes, and thus the noose is tightened.

We made two marches, of nearly nine hours each, in a southerly direction, after leaving Lasamis, winding through a series of flat valleys with sandy soil and plenty of bush.

We were out of the volcanic region, and granite and a coarse green stone took the place of the iron pyrites. The hills were flat-topped, and rose about three hundred feet above the valleys, so that these latter had the appearance of having been washed out by water. Water was to be found at intervals of about every fifteen miles by digging in the beds of tugs, under dhum palms. Just before we camped, at the end of the second day, I saw a herd of eight giraffes a half-mile away; but they had evidently scented us, and were making off at a rapid pace with that graceful, ship-like motion peculiar to these animals. They were scarcely out of sight when two more giraffes appeared on a hill a thousand yards away. Both Dodson and I were sadly in need of boots, and my boys were equally in want of sandals. I had always refrained from shooting at giraffes unnecessarily, and especially when they were far away and there was danger of only wounding them. But this time we were so anxious to obtain one of these thick-skinned animals that I could not resist the temptation to take a chance shot.

The two giraffes stood out in bold relief from among the bushes, and remained quite motionless as I put my .577 to my shoulder. I elevated the sight a good inch above the larger of the two animals, and, aiming in a line with its shoulder, pulled the trigger. The beautiful beast raised itself on its hind-legs, plunged about a little, and then tried

to limp away; but I had broken its shoulder, and it could scarcely move. Dodson and I and a few boys started on a run toward the wounded animal, and then, as we approached the spot where I had shot at her, we began to walk cautiously, until we spied both giraffes standing quietly not forty yards away. I fired at the wounded female; but she started to limp off, followed by her faithful mate.

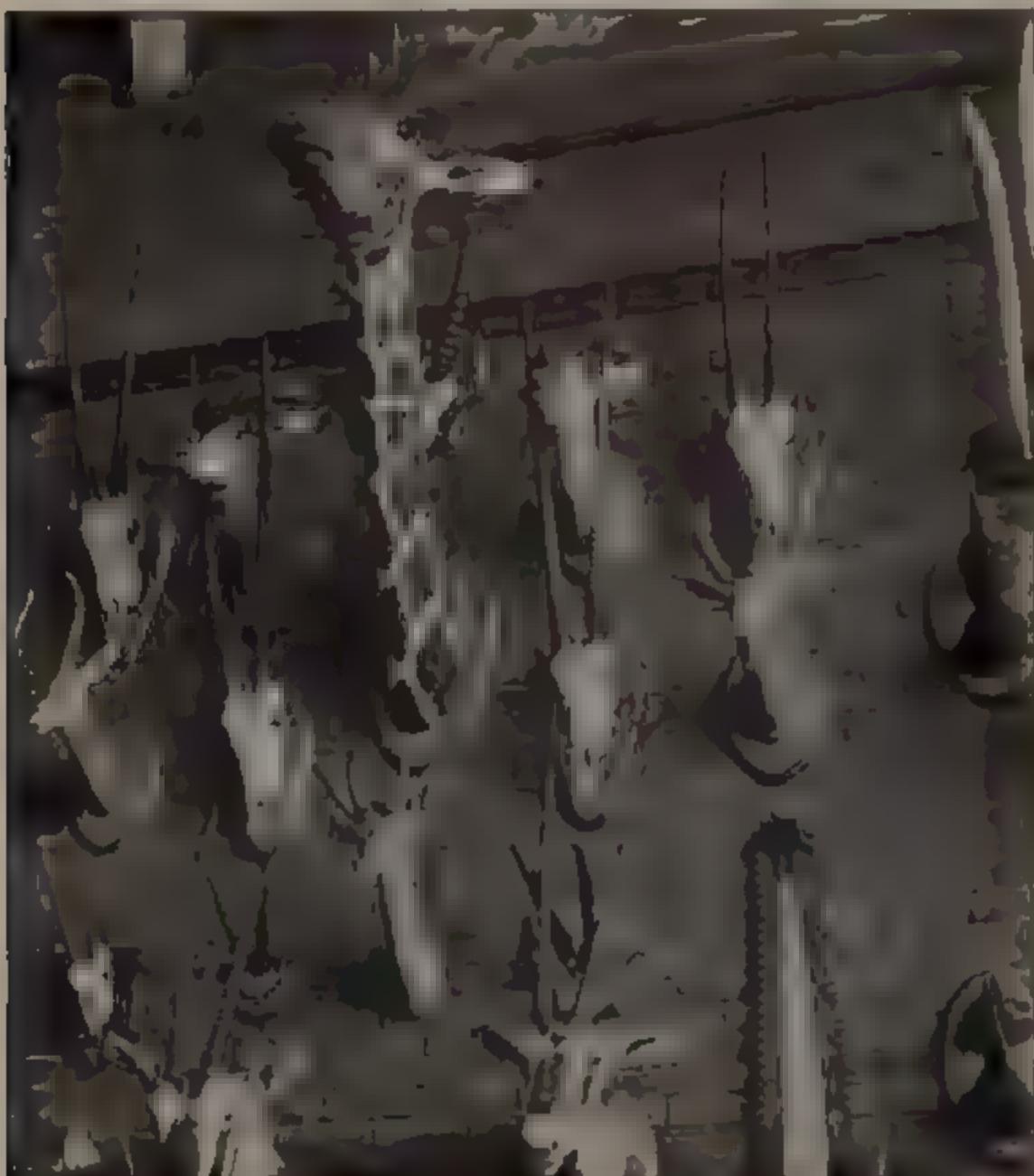
My boy Yusif ran hard to head the animals off in one direction, while I rushed another way to intercept them. The second giraffe, now catching sight of Yusif, bounded directly toward me, passing me at about twenty paces, so that I could easily place my bullet. One shot in the heart was sufficient to bring him to the ground. I was now near the wounded female, and sent several bullets into her from behind as she was struggling away. Finally she stopped, so that I got a good shot at her neck and killed her instantly.

I do not give myself any credit for having made a "bull's-eye" at a thousand yards with an express rifle, except that I made a good line shot. It was from pure chance that I broke the giraffe's shoulder, but it was a most fortunate thing for all of us. Not a scrap of either of the two animals was wasted. There were some Wandorobbo living about the tugs, who were only too glad to get the little meat and hide which my boys left. The giraffes belonged to the rare species (*Camelopardalis æthiopicus*) which we had seen ever since we left the Shebeli River.

My boys were very fond of giraffe meat, as they said the animals were brothers to camels, because their milk was salty, their flesh sweet and fat, and they had no upper incisor teeth. Giraffe meat is much better, in my opinion, than the insipid flesh of camels.

For three long marches we plodded along through a monotonous dry, flat, bushy country, covered with a red

loose soil, till we reached the Guaso Nyiro. We were obliged to carry water the whole distance, and therefore had to march long and fast every day. It was very hot, the thermometer registering 100° Fah. in the shade



A PART OF THE AUTHOR'S COLLECTION AT THE UNIVERSITY OF PENNSYLVANIA, INCLUDING THE GIRAFFE, "CAMELOPARDALIS AETHIOPICUS," THOMAS.

during most of the time the sun was above the horizon. About noon each day I was seized with an attack of fever, which made me almost delirious for about an hour, so that I would not be able to reach the caravan until long after it had camped.

My Rendile guide amused me very much one day by requesting permission to go to a certain tree which grew about half a mile away from our line of march. To my questions he replied that he wished to take some tobacco to his brother, who had died under the same tree two years before. This wish on the part of the Rendile to provide tobacco for the soul of his deceased brother surprised me greatly, as it is most unusual to find a native of Africa actually inclined to act kindly from purely generous motives. I was also astonished to find that the Rendile believed in a living soul after death, and that this soul must have material wants.

The Guaso River was reached on September 22, and our line of march joined with that of Mr. William Astor Chanler.¹

The last march to the river was most disagreeable for me, as I had an attack of fever, which made me delirious for a couple of hours, and compelled me to order many halts, while I rested under the shade of some bushes. We could not pitch camp, owing to lack of water. Finally, at eight o'clock at night, we reached the river, after having spent sixteen hours on the road. We heard no less than five rhinoceroses rustling among the bushes after it got dark, but fortunately they did not attack us. My system had evidently received an extra supply of malarial germs on the trip up the river Nianam, and these were now manifesting themselves. A few days' rest on the Guaso Nyiro, however, and large doses of quinine — as much as

¹ Mr. Astor Chanler had followed the course of the Guaso Nyiro from a point a considerable distance to the west of our crossing, until he discovered it emptying into the Lorian Swamp or Lake. After this he had returned along his previous trail.

The Guaso Nyiro has its origin on Mt. Kenya, and according to the reports of the Rendile it does not terminate in the Lorian Swamp, but continues eastwards to the lakes in the Wama district, near the mouth of the river Jub.

sixty grains in one day — put an end to the febrile attacks.

While crossing the river, poor Yusif was very nearly dragged away by a crocodile. He and many others of my boys were in the middle of the stream, carrying over the sheep and goats, when a crocodile seized his left arm, and tried to pull him under the water. Yusif's companions pluckily came to his aid, and managed to drive the crocodile away, but not before the poor fellow's arm was nearly torn from him. I was obliged to amputate the arm close to the shoulder.

While I was engaged in operating on Yusif's arm, a herd of elephants passed near the camp, but I did not go after them.

For eight days we remained about the banks of the Guaso Nyiro. Dodson tried several times for elephants and rhinoceroses, and succeeded in shooting one rhinoceros which charged him at close quarters. He gave me an exciting account of how he and three boys who were with him had been very nearly run down by the beast in a narrow alley among the bushes. At another time Dodson found himself almost under the head of an elephant, which was coming toward him, but fortunately the animal turned tail on seeing his mortal enemies. Much to the delight of poor Yusif, I succeeded in killing three large crocodiles directly in front of our camp.

On the 1st of October we struck camp and made a long march southward toward the Tana River. Nothing whatever had been previously known of the country lying between the Guaso Nyiro, at this point, and the Tana. My Rendile guide, who now left us to return to Marsabit, could give us no information on the subject. We could only carry enough water to last three days, and in order to do this I was obliged to throw five thousand Snyder cart-

ridges into the Guaso Nyiro to lighten the camels. There was a distance of one hundred and twenty miles in a straight line to cover, and no one could tell when we should reach water. So it was with no little concern that we ventured on our last plunge into the unknown.

For the first four miles after leaving the Guaso Nyiro, the country was covered with luxuriant green bushes among which roamed many rhinoceroses. These rhinoceroses struck me at once as belonging to a different species from any we had met with before. They were quite as large as the white rhinoceroses of the South, and their upper lip was not as pointed and overlapping as in the case of the ordinary black variety. Their power of resistance was quite proportional to their enormous size, as it took twice the number of shots to bring one of these beasts to the ground that it did to kill the black rhinoceroses. We had hardly marched ten minutes before one of these huge animals made its appearance directly ahead of us. As Dodson wished to have the excitement of killing the brute, I handed him my .577, while I remained behind with the eight-bore.

While the rhinoceros came charging down on us, Dodson waited until he got quite close, and then, with his first shot, broke one of his fore-legs. As the rhinoceros was now at our mercy, I tried several experimental shots with a 45-90 Winchester at different parts of his head and body with as little effect as though I had been shooting with a pop-gun. After Dodson had finished his rhinoceros with another shot from the .577 in the neck, and we had marched on about a milé, a female rhinoceros, with a young one following close at her heels, darted out viciously from behind a bush, and charged at the leading camel. I dropped her on her knees with the first shot, but as she rose again the bullet from the left barrel of my express felled her a

second time. But still she managed to stagger to her feet and reach the camel. She had just enough strength left to plunge her horns into the camel's belly and then drop to the ground dead. The young rhinoceros would not quit its dead mother's side for some moments, and, as I did not wish to kill it, I was obliged to fire several times over its head to frighten it away.

While we stopped to cut the throat of the camel which had been gored, and which was, of course, dying, some of my boys, who had been far behind with the cattle and sheep, came up and gave me their excuse for lagging. They said they had had to halt three times on account of a singular rhino, which would stop directly in front of them, puffing and stamping, and apparently waiting for them to come up, so that he could charge them at close quarters. My boys did not fire, but waited each time till the animal disappeared. The rhino would only describe a short ellipse, however, as he ran through the bushes, and would appear again to repeat his first performance. Thus three times within half an hour had the caravan been molested by bullying rhinoceroses.

CHAPTER XXVIII.

ACROSS A BARREN COUNTRY TO THE TANA RIVER — ON THE EQUATOR —
AT LAST WE REACH THE TANA — OUR JOY AT MEETING THE REV. ROBERT
ORMEROD — A GREAT CHANGE FOR US — A DELIGHTFUL JOURNEY HOME-
WARD — THREE HUNDRED MILES IN CANOES — WITU AND MKANUMBI —
CAPT. A. L. ROJERS — LAMU — THE LAST OF OUR AFRICAN HOME —
AN EIGHT DAYS' SAIL TO ADEN — MY BOYS AND I PART.

AFTER passing the green, bushy country near the river, our journey led us for six marches, of nearly eleven hours each, across an indescribably desolate and monotonous region. Once only did we find water in sufficient quantity to give the animals a drink and to half-fill our water-barrels. On another occasion we found just enough by digging deep in the bed of a tug, to allow each of the boys a quart of water. There were no paths, no signs of animal life, and no indications of there ever having been human beings in this dried-up, flat, sandy country.

Except an occasional hornbill, there were no birds to relieve the death-like oppressiveness of the picture. There was no vulture even in the heavens, and no movement upon the baked, glaring earth in this land of despair. Only the fury of the sun was felt, casting its heartless rays upon the caravan as it wound its way in and out among the half-dead acacias, struggling onward with a determined energy engendered by the dread of death from thirst.

There was, however, one thought that encouraged us, and that was that this period of toil, discomfort, and anxiety,

was to be our last. There were now but four, now three, and now two days more for us to endure, and we should be on the banks of the Tana River. When we camped at sunset on the 6th of October, we could see a long line of dhum palms but three miles distant, and all hearts were glad. Taking out my theodolite, I found we were exactly on the Equator. The rising sun would see us out of this land of death.

Bright and early we were on the banks of the broad, swift-flowing Tana. What a change! No more of the unknown to penetrate. As I thought of this, my ardor for marching further utterly collapsed. It seemed as though a steamer ought to come along and fetch us. And where were the natives with their canoes, which we expected to find? However, although I resented the idea of having to tramp three hundred miles farther, I could only feel gloriously happy. There was no further reason to fear lest the rich results of my expedition should be lost.

But now let those patient readers who have done us the honor of following our fifteen months' wandering all the way from Berbera, imagine our joy and astonishment, and especially the feelings of Dodson and myself, when a canoe hove in sight just around a bend in the river,— and in that canoe sat a man holding a pink umbrella! Yes, true enough, a pink umbrella, and underneath a man in a white suit! We knew that only seven white men had ever passed along this part of the Tana before. And was it to be our good fortune, then, to arrive here just in the nick of time to meet the eighth explorer, as he sped swiftly along on his homeward course? I fired two shots from my Winchester, and the next instant the salute was answered from the canoe. With all the Somalis drawn up in line behind us, presenting arms, Dodson and I awaited the landing of the white man. Introductions by a third person

are unnecessary in these remote regions. As the Rev. Robert Ormerod stepped on the sandy beach, he grasped our hands heartily, and at once our savage life among the "blacks" seemed like a dream.

I will pass quickly over our trip to the coast, for, although journeys along the Tana River have made a great part of the subject-matter for more than one book, it was to me but the delightful conclusion of a long and successful expedition.

The Rev. Robert Ormerod, who was a member of the Methodist Reformed Mission stationed near the mouth of the Tana, had been making an expedition in canoes far up the river, with a view of forming another mission station. By his great tact and ability he had won the hearts of the natives along the river, so that he was soon able to procure for me a half-dozen canoes and Pocomos, or river-men, to paddle them. The camel loads were lightened by our placing many of them in the canoes, while Dodson and I made ourselves most comfortable, each in the middle of a "dug-out," reclining on blankets and bags.

What luxury it was for us to be paddled quietly along, after having had such wearying marches! The caravan started out very early each morning, so that we could meet it camped at some spot near the river about noon. A more pleasurable trip than this canoe ride from Borati to Ndera I never made in my life. Mr. Ormerod, among his other kindnesses, provided Dodson and myself with various periodicals, three or four months old, but very recent to us.

The various villages we passed furnished fruit, vegetables, and eggs. Lazy crocodiles exposed their sides for us to shoot at, while many gay-colored birds stimulated us to further natural-history work. Troops of baboons

and other kinds of monkeys made sarcastic remarks about us from either bank, and all the while the jolly Pocomos sang away melodiously as they paddled in stern and bow. The canoe which contained Dodson capsized on striking a snag in some rapids. I thus lost my tent, one of my two cameras, my medicine-chest, and several other things of little importance at this stage of our journey. As Dodson was safe from drowning by climbing up the trunk of a tree which projected from the river, and as he managed also to hold his feet high enough above the water to prevent them being seized by crocodiles, and just high enough to afford us something to laugh at, all was well. At one time we saw a herd of ten elephants bathing in the river. On another occasion, just as we were about to leave the river, after a canoe ride of nearly three hundred miles, we visited the Rev. Mr. Elmi, of the Swedish American Mission, and were hospitably entertained at luncheon by that gentleman.¹

A few miles farther and we found ourselves at Ndera, where we took leave of our good friend, the Rev. Robert Ormerod, and started on our two days' march to Witu. We hurried along rapidly.

There were many things to interest us; among others, a beautiful Arab girl,—but let us only take one good look at those splendid limpid eyes, *en passant*, and feel ourselves suffused with a warm glow, which remained in our memory like the charming rosy light of the sun setting over a savage country.

And now we are in touch with civilization once more, and actually sending messages by telephone from Witu to Lamu.

¹ The Rev. Mr. Elmi's house is the farthest inland mission station on the Tana, and is situated at Mecarini, a little north of Lalafto.

We were much surprised, when we reached Witu, to find how very clean and well managed the town was. Capt. A. L. Rojers, English Resident at Lamu, may well be proud of having brought both Witu and Mkanumbi into their present state of order and cleanliness within a period of a few years. The Sultan of Witu, Omar Amaria, did all in his power to make us comfortable, but I was too anxious to catch the steamer at Lamu to enjoy his hospitality more than one night. We covered the whole distance of twenty-one miles, between Witu and Mkanumbi, the next day in seven hours. This shows what camels can do on a good level road. Captain Rojers was unable himself to come from Lamu, but he very kindly sent a steam-launch and five barges to Mkanumbi to take us to the island on which Lamu is situated. Captain Rojers, knowing that we should be obliged to spend a night at Mkanumbi, was considerate enough to send me a bundle containing soda water, cigarettes, beer, and the latest newspapers. This act of kindness and thoughtfulness on his part shows one side of the character of the man who, with unfailing justice and a firm hand, rules the turbulent inhabitants of Lamu, Witu, and all the adjacent country.

No more nights in tents! Our wild but fascinating African home has now disappeared. Good-by to the camels and donkeys. It was impossible for me to wire to Zanzibar and Aden, as the telephone communication between Lamu and Mombasa had been cut by that archfiend Mbarak, who had started a rebellion near Melindi. Our friends, therefore, could not know of our return until we presented ourselves at Aden.

We had made a record journey from Borati to Mkanumbi, having accomplished the distance of over three hundred miles in a fortnight. And now, when we

arrived at Lamu, we found that we had over two days in which to enjoy Captain Rojers's hospitality, before the steamer arrived which was to convey us to Aden.

On the 29th of October, sixteen months after our landing at Berbera, the good steamer "Madura," with Dodson and myself and my seventy brave Somalis aboard, starts from Lamu for her eight days' trip to Aden. Dodson and I are little the worse for our four thousand miles of marching and all the labors we have undergone, and my good followers are happy and merry as can be. The thirty odd boxes containing the results of my expedition are safe and sound. Have I not every reason to rejoice? But yet, as I pace to and fro, and see the shores of Africa receding gradually from view, I cannot shake off a slight feeling of sadness.

It was an occasion for rejoicing for the Somalis and natives, when my boys landed at Aden, and I had circulated £2,000 among them.

"What will you do, now that you find yourselves rich with the money I have given you," I asked my boys. "Get wife, Sahib," was the universal answer.

With my boys gone from me, I felt that my expedition to Lake Rudolf was indeed a thing of the past. As I looked into the eyes of my faithful followers, on parting from them, I almost fancied I could detect there signs of genuine affection.

Happy boys! going back to good old Somaliland, with its glorious climate and freedom from cares and ambitions. It is a great comfort to me to think that I lost only six out of the force of eighty Somalis who started with me for Lake Rudolf.

CONCLUSION.

WE arrived in England on the last day of November, 1895, after an absence of a year and a half.

Before concluding my narrative, I wish to express my high appreciation of the interest which the various specialists who have described my collections, and many of whose names appear in the appendices to this book, have taken in my work. And I wish also to thank the English officials at Aden, and the United States Consul at that port, William M. Masterson, Esq., for their courtesies and their many acts of kindness toward me. I have presented almost all my natural-history collection to the above-mentioned specialists, or else to the institutions with which these gentlemen are connected,—the British Museum of Natural History receiving most of the type specimens of new species, and the Academy of Natural Sciences, of Philadelphia, the greater part of the remainder.

My maps I have presented to the Royal Geographical Society, of London, and I am greatly indebted to E. V. Ravenstein, Esq., cartographer of the society, for the careful and excellent way in which he has compiled them.

The five maps which accompany my narrative are copied from drawings which I made during my journey, and are based on many hundred observations which I took with theodolite, sextant, and prismatic compass.

In reference to the large number of species of birds, reptiles, mammalia, etc., new to science, which my natural-history collection contains, and in regard to the value of the collection as a whole, I will refer readers to the appendices to this narrative, and to reports which have appeared in the Proceedings of the Zoölogical Society of London,

the "Journal of Botany," and other English journals, and to the Proceedings of the Academy of Natural Sciences, of Philadelphia, 1896. The reports on the collections in the following branches of natural history do not appear in this book.

Of birds there were 700 specimens. These have been examined by Dr. R. Bowdler Sharpe, who has found no less than 24 species among them which were previously unknown to science. Of reptiles and batrachians there were over 300 specimens, of which, according to Mr. Boulenger, 11 were new. The plants collected numbered over 300 specimens; butterflies, over 1,000; mammalia, 200; orthoptera, 207; diptera, 130; hemiptera, 262; neuroptera, 31, and hymenoptera, 160 specimens, all of which embraced many species new to science.

NOVEMBER 24, 1896.

Since writing the foregoing narrative I have observed that the political situation in Northeast Africa has so changed that I wish to add a few remarks concerning the future of Abyssinia and the remainder of the country included in the Anglo-Italian treaty of 1894.

There can be little doubt that it is only a question of time when all of Africa will be divided among the European powers, and it is therefore a matter of the greatest international importance which country shall be the eventual possessor of Abyssinia and the country adjacent to it on the south and west. The crushing defeat of the Italians at Abba Garima, and the still more recent surrender of Italy's claims in Abyssinia in consequence thereof to the Emperor Menelek leave the question of the future occupancy of the country between the Somali coast and the Nile open to all the powers. The Anglo-Italian treaty of 1894, in which Abyssinia and the country

to the south of it were divided between England and Italy on paper, can no longer hold good, since, to quote from J. Scott Keltie's "The Partition of Africa" (London, Edward Stanford, 1895), "it should never be lost sight of that, according to the spirit, if not the letter, of the Berlin Act, if there is no effective occupation, there can be no claim to possession."

England is therefore left as free as France or Russia or any other nation to turn her attention to the acquisition of the vast and important territory in question. Although it would not be advisable to take the initiative and attack any portion of the Abyssinian domains which are at present under the direct rule of the Emperor Menelek, the districts immediately adjacent to these, and peopled by independent savage tribes, could be at once occupied without advancing against the indubitable authority of Menelek. The possession of these latter countries is of the utmost importance to the nations contesting for territory in Africa.

From the opportunities I personally had of studying the warlike qualities of the Abyssinians, and from the subsequent brilliant achievements of the latter in their battles with the soldiers of Italy, I have formed the opinion that the gaining of Abyssinia alone, by a nation conquering Emperor Menelek, would not be commensurate with the difficulties and cost in men and treasure which would be entailed.

But if the Emperor Menelek should fight for his unjust claims to the "country all the way south to Mombasa," it would well repay England to send an army against him. With an expedition so well equipped and so splendidly conducted as is the present one in the Soudan, there could be only one result, — a quick and decisive victory over Menelek. For although, as I have stated, the Abyssinians are strong when compared with other semi-civilized races,

they must surely fall before the first well-organized European force that opposes them. The Italians suffered defeat because their army which marched to Abba Garima was miserably organized in every department. Italy "sent a boy to do a man's work." A line run from Ime, on the Shebeli River, to a point immediately below Bonga, in Kaffa, will mark the southern limits of any country to which the Emperor Menelek can at present lay claim, either by virtue of peaceful occupation by treaties with the native chiefs, or by conquest.

To the west, Abyssinia is bounded by a line running north and south along the western border of Kaffa. J. Theodore Bent, in the "Fortnightly Review," September, 1896, states that Italy is of the opinion that if Shoa, Harar, and the Juba districts were permanently colonized, "they would have to maintain perpetual warfare in the Shoan mountains; for the inhabitants of this district, being a war-like race, would never submit." This view of the case I believe to be erroneous. There would be no fighting at all unless there arose a war against Menelek's united forces. If Menelek were defeated, his highly organized army and all the tribes at present under his sway would submit to the dictates of the conquering nation; and if that nation were England, or if the wise colonial policies of the British were carried out, there would be no subsequent uprisings. Colonists would be amply able to pay for their own protection, the only provision for the protection of their property which would be required being a very small police force to prevent petty attempts at theft.

It is absolutely imperative that the British prevent the Abyssinians from advancing to any great distance beyond the lines above mentioned. Aided by the French and Russians, the Emperor Menelek will see his domains extending rapidly south and west, unless he be prevented

from further conquest by the previous occupation of the neighboring countries by England. He will soon be threatening the English interests along the Nile, in the land over which England's forces are now struggling. And he will be in dangerous proximity to the French possessions on the west, to the Germans on the south, and to the Congo Free State. (See map in J. Scott Keltie's "The Partition of Africa," 1895.)

A natural sequence to the extension of Menelek's conquests would be the occupation of a vast amount of the newly acquired territory by the French or Russians. The Abyssinians, French, and Russians will not long delay in pressing to the south.

It behooves England to act at once. If she does not immediately check Abyssinian advance, it will only be a necessity deferred, and then, when finally she is obliged to possess herself of the country to the east of Lake Rudolf, and perhaps far to the south of the northern end of the lake, she will have lost all of that magnificent, fertile, and mountainous country of great commercial value, extending a hundred miles north of Lake Rudolf, embracing Lake Abaya and the sources of the river Jub, and the greater half of the Boran country. This is a district I have every reason to believe to be rich in mineral wealth. There is a rainfall of between twenty and thirty-five inches a year distributed fairly evenly over the twelve months, although greater in summer than in winter; and the climate is such that a European farmer can work here without being oppressed by heat. Maize and cereals of all kinds, vegetables and fruits, can be planted with good and quick results in almost any season. The markets would be amply sufficient to supply the artisans and merchants required by colonists.

Except in the valleys through which a river runs, or near the lakes, the country is most healthy. In fact, no better

sanatorium for consumptives could be found. The finest cattle, sheep, and goats I saw in Africa were raised on the plateau lands lying between the Webi Shebeli on the east and the river Nianam on the west, and between latitudes 5° and 7° north. The number of elephants in this country is legion, and as the supply of tusks from Central Africa diminishes, it will be from here that the world's supply of ivory will come. Some of the ivory finds its way to Merka and Modisha on the Italian coast near the mouth of the Jub, and only recently a trade has sprung up between the districts about Lake Rudolf and Mombasa. There will be an ever-increasing demand for cloth and articles of European manufacture, and a very lucrative trade will be established as the facilities for transportation increase. The country is most easily reached by way of Abyssinia. There are good roads from the French port, Obock, on the Red Sea, almost to its borders, so that France and Russia will have an advantage over other countries.

I believe the best means Great Britain has at her immediate disposal of raising the English flag here, is that of sending an expedition across the country between the Nile and the River Nianam. This latter stretch of country remains still unexplored, but from what I saw of the plains eighty miles to the west of the Nianam, I am of the opinion that few obstacles, such as mountain ranges and swamps, are to be encountered.

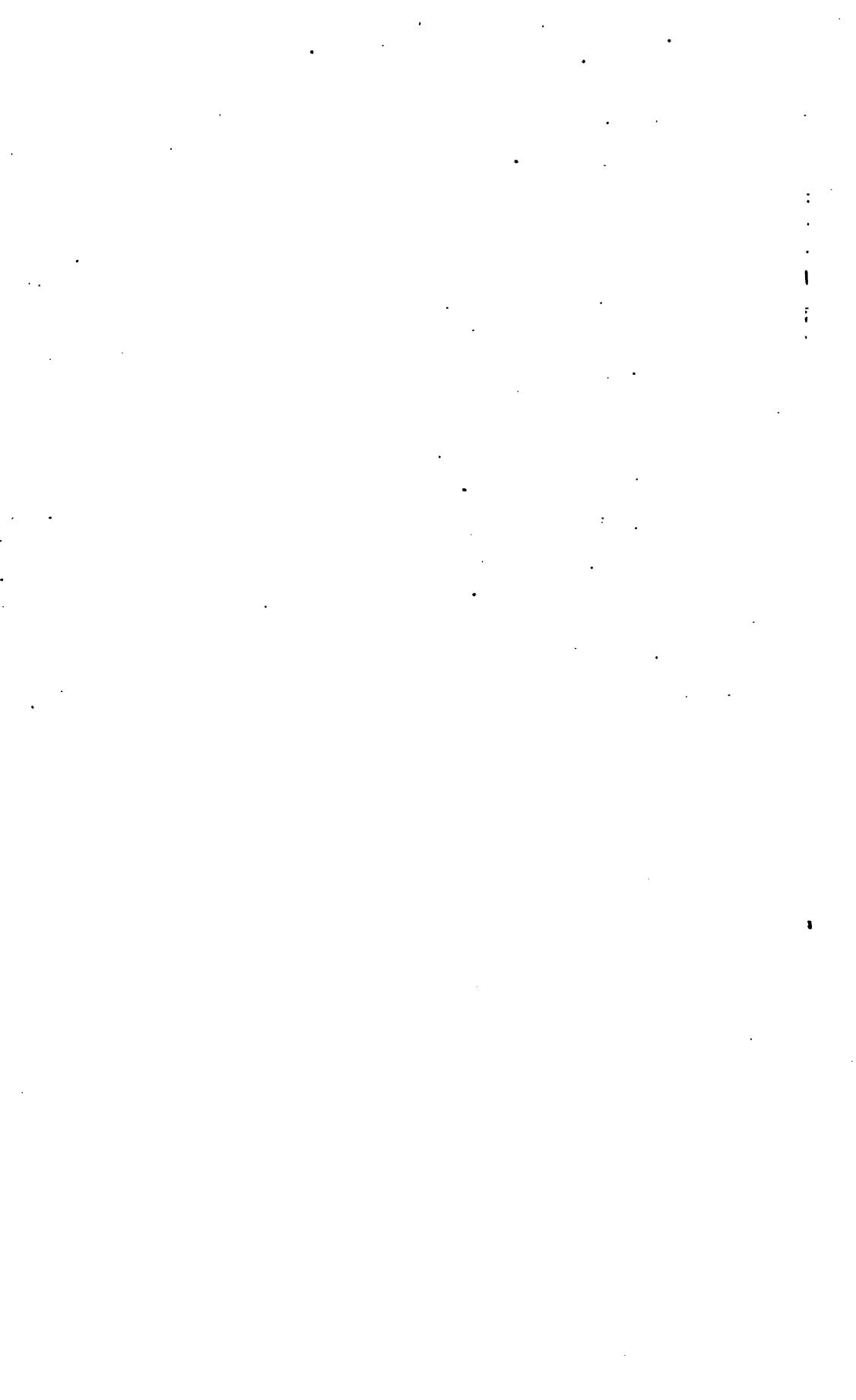
The great difficulty, perhaps, may be a lack of water. Doubtless the river Sobat takes its origin not far from the sources of the Nianam, and it would probably be advisable to ascend the Sobat to a considerable distance. Although this is England's easiest way of approach, it would not be very difficult for the Germans to the south of the Tana River, or for the English, to reach the country in question by following northwards along my line of march between

Lake Rudolf and Kerokore on the Tana. And still less of an undertaking would it be to take an expedition across Somaliland, from Berbera to the Boran country, provided the attacks on the part of the Abyssinians could be averted. In the latter case both the Somalis and the Gallas would eagerly assist the European forces.

After the railroad to Uganda has been completed, it will not be difficult to establish a communication by rail between Lake Victoria Nyanza and Lake Rudolf. Besides the economic and political reasons which will eventually induce one of the civilized nations to rule Abyssinia, there are moral considerations which should compel all the civilized people of the world to lend their support to the crushing out of the Abyssinian power and to the substitution of a humane government in place of Menelek's brutal rule. Never have the evils of slavery shown themselves in a more terrible light than that in which they are now manifesting themselves in Abyssinia, nor could as cruel a government be found in the world as that which is in store for the tribes among whom I journeyed, if Menelek be not checked.



APPENDICES.



APPENDICES.

A.

Report on a Collection of Fishes made by Dr. A. Donaldson Smith during his Expedition to Lake Rudolf. By Dr. ALBERT GÜNTHER, F.R.S.

HAVING been intrusted by Dr. Donaldson Smith with the examination of the fishes collected by him during his recent expedition in Eastern Africa, I herewith give the result of my examination. Owing to the great difficulties of the transport of preserving materials, the number of specimens had to be restricted, the entire collection amounting to 35 specimens, which are referable to 18 species. The chief interest attached to this collection centres in the fishes from lakes Rudolf and Stephanie, whence I believe no specimens have been received previously. I distinguished the following eight species among them:—

Polypterus bichir.
Chromis niloticus.
Chromis tristrami.
Synodontis schal.

Citharinus Geoffroii.
Alestes rueppellii.
Distichodus rudolphi, sp. nov.
Barbus, sp.

It is a noteworthy fact that five of these species belong to the fauna of the Nile, although they are by no means limited to that river, having been found in various other parts of Tropical Africa. *Chromis tristrami* (or *Acerina zillii*, Gerv.) has been described from fresh and saline waters of the oases of the Sahara; and *Distichodus rudolphi* is closely allied to the Nilotic *D. rostratus*. The other species enumerated in the following list were obtained *en route* to Lake Rudolf or on the return journey, in various localities, which will be indicated under the head of the several species.

1. *POLYPTERUS BICHIR*, Geoffr.

Two young specimens from Lake Rudolf, both belonging to the variety with ten spines, which also occurs in the Upper Nile and West Africa.

2. *CHROMIS NILOTICUS*, Hasselq.

Of this widely distributed species, the Bolti of the Nile, three specimens were in the collection.

a. One from Lake Abaya, 24 cm. long; its scales are somewhat fewer in number than in typical specimens, viz., 27 along the lateral line. D. $\frac{15}{18}$.

b. One from Lake Stephanie, 16 cm. long. The teeth of this specimen are equally small as in the preceding specimen, but fewer in number, possibly owing to its younger age and less advanced growth of the jaws. D. $\frac{15}{18}$.

c. A young specimen from Lake Rudolf, 10 cm. long. D. $\frac{15}{18}$.

3. *CHROMIS TRISTRAMI*, Gthr.

Specimens from Lake Rudolf cannot be distinguished from the types which were obtained in the oases of the Eastern Sahara. The teeth of this species are much broader and larger than those of the preceding species.

a. A rather large specimen, but with the hinder part of the body decomposed, from Lake Rudolf (12.8.95). D. $\frac{15}{18}$.

b. Another, obtained in a dry watercourse some ten miles from Lake Rudolf (16.8.95), 15 cm. long. D. $\frac{14}{18}$.

4. *CHROMIS SPILURUS*, Günth. Proc. Zool. Soc. 1894, p. 89.

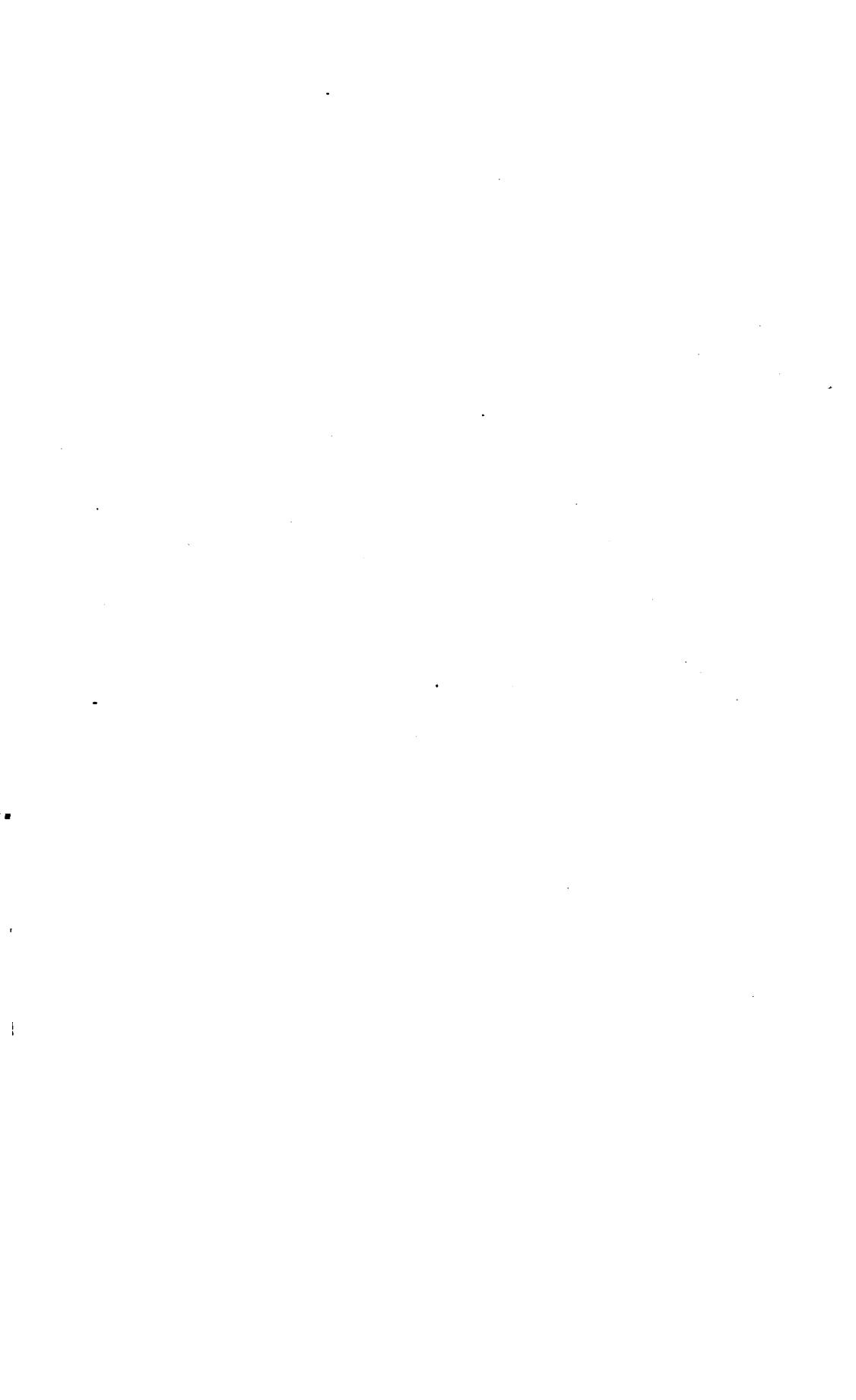
This species was discovered by Dr. Gregory in pools remaining in dried-up watercourses of North Giriama. Dr. Donaldson Smith found this species (30.12.94) under similar conditions near the Shebeli River, and (8.12.94) in water-holes near Sheikh Husein. All the specimens, those collected by Dr. Gregory as well as by Dr. D. Smith, are small, not exceeding 12 cm. in length.

5. *CLARIAS SMITHII*, sp. n.

Clarias lasera, Günth. Proc. Zool. Soc. 1894, p. 89 (nec C. V.).
D. 70-73. A. 58-62. V. $\frac{1}{6}$.

Vomerine teeth granular, forming a very broad band, nearly





twice as broad as that of the intermaxillary teeth, with an obtuse rounded projection behind in the middle of its concavity. Transversely the intermaxillary band is wider than the vomerine. The mandibular dental band is as broad as the intermaxillary. Upper surface of the head with not very coarse granulations; the length of the head is two sevenths of the total, without caudal. The maxillary barbel reaches beyond the root of the pectoral, the nasal barbel being not quite half its length. The pectoral fin extends to, or nearly to, the origin of the dorsal, the spine being two thirds of the fin. Dorsal fin separated by a short interspace from the caudal.

A single specimen, 45 centim. long, is in the collection, and was captured in the middle course of the Shebeli. The breadth of the intermaxillary band of teeth is 5 millim., that of the vomerine 8 millim.; the transverse width of the former is $\frac{5}{7}$, of the latter 47 millim. A fish captured by Dr. Gregory at Ngatana, and enumerated by me under the name of *Clarias lazera*, is evidently of the same species.

The African species of *Clarias* are extremely similar in general appearance, and most difficult to define, chiefly on account of the uncertainty which attaches to almost all the taxonomic characters which have been used for distinguishing them. Some of the characters are certain to undergo considerable changes with age; for instance, the vomerine teeth, which are not likely to be granular in very young specimens. The presence or absence of a posterior process of the vomerine band is a more reliable character, as is proved by the series of *C. gariepinus* in the British Museum. Peters (Reise n. Mossambique) was of a different opinion, and has attempted to prove the variability of this character; but in my view he has confounded two, or even more, species under the name of *C. mossambicus*.

Two small specimens of *Clarias* collected on the Shebeli River (1 Feb., 1895) are not in sufficiently good condition to be determined. The form of the vomerine band is very different from that of the fish described as *C. smithii*. A collection of a large series of specimens of all ages of any species of *Clarias* from the same locality is very much needed; but until this is done, it seems to be safer to utilize all characters observable in apparently mature or nearly mature specimens.

6. EUTROPIUS DEPRESSIROSTRIS, Ptrs. — Shebeli River.

7. *SYNODONTIS GELEDENSIS*, sp. n.

Allied to *S. serratus*.¹

General form of the body somewhat elongate; snout rather produced, subconical; diameter of the orbit two sevenths of the length of the snout. The gill-opening extends downward to before the root of the pectoral fin. Mandibular teeth in moderate number, shorter than the eye, in a very narrow band. The maxillary barbels reach to the end of the humeral spine, and are lined with a narrow membrane interiorly. Mandibular barbels reaching to the root of the pectoral, provided with numerous long fringes. Nuchal carapace tectiform, obtusely rounded behind, its end reaching to below the first soft dorsal ray. Humeral spine not quite extending so far backward, much longer than high, with its upper margin deeply excised, terminating in a sharp point.

Adipose fin rather long, the interspace between it and the dorsal being less than the base of the latter. Dorsal spine serrated anteriorly, shorter than the pectoral spine, which is strongly serrated along both edges and equal to the distance of the foremost part of the soft part of the trunk from the snout. Dorsal and pectoral spines and the caudal lobes produced into filaments. Coloration uniform.

D. $\frac{1}{2}$. A. 11. P. $\frac{1}{2}$.

A single specimen, 30 cm. long, was obtained on Jan. 19, 1895, at Geledi on the Shebeli.

This fish is closely allied to *S. serratus*, but sufficiently distinguished by the different form and outline of the cephalic carapace.

8. *SYNODONTIS SCHAL*, Bl. Schn.

As the specimen in the collection differs in some respects from the typical form, I give a description of it.

D. $\frac{1}{2}$. A. 12. P. $\frac{1}{2}$.

Rather stout in general habit; snout comparatively broad; diameter of the orbit two fifths of the length of the snout, and of the width of the interorbital space. The gill-opening extends downward to before the root of the pectoral fin. Mandibular teeth in a very narrow and short row, less than 20 in number, shorter than the eye. The maxillary barbels do not reach the end of the humeral spine and are simple; mandibular barbels reach-

¹ I must again draw attention to an unfortunate clerical error in Cat. Fish. v. p. 212, where the line "B. Mandibular teeth no longer than the eye" ought to have been placed above "*Synodontis serratus*."

ing to the root of the pectorals, sparsely provided with fringes. Nuchal carapace tectiform, compressed into a median ridge, rather pointed behind, its end reaching to below the first soft dorsal ray. Humeral spine reaching equally far backward, much longer than high, with its upper margin oblique and nearly straight, terminating in a sharp point. Skin of the side of the body villous.

Adipose fin moderately long, the interspace between it and the dorsal being less than the base of the latter. Dorsal spine short, with a sharp anterior edge which shows scarcely a trace of serrature about the middle of its length, and is probably quite smooth in older examples; this spine is shorter than the pectoral spine, which is serrated along both edges and shorter than the distance of the foremost part of the soft part of the trunk from the snout. Coloration uniform.

A single specimen, 21 cm. long, was obtained in Lake Stephanie on June 11, 1895.

9. *SYNODONTIS SMITHII*, sp. n.

D. $\frac{1}{2}$. A. 13. P. $\frac{1}{2}$.

Rather stout in general habit; snout comparatively broad, not much attenuated in front; diameter of the orbit one half of the length of the snout, and of the width of the interorbital space. The gill-opening extends downward to before the root of the pectoral fin. Mandibular teeth in a narrow, short series, about 25 in number, shorter than the eye. The maxillary barbels do not reach the end of the humeral spine and are simple; mandibular barbels reaching to the root of the pectorals, provided with long fringes. Nuchal carapace tectiform, compressed into a median ridge, rather pointed behind, its end reaching to below the first soft dorsal ray. Humeral spine reaching equally far, or even a little farther backward, much longer than high, with its upper margin oblique, but straight, terminating in a sharp point. Skin of the side of the body villous, particularly along the lateral line.

Adipose fin moderately long, the interspace between it and the dorsal being less than the base of the latter. Dorsal spine with a sharp, non-serrated anterior edge, equal in length to the pectoral spine, which is strongly serrated along both edges, the inner serrature being coarser than the outer. The length of these spines exceeds somewhat the distance of the foremost part of the soft part of the trunk from the snout. Coloration uniform.

A single specimen, 24 cm. long, was obtained.

This species is allied to *S. schaferi*, but distinguished by its enormously long spines.

10. *SYNODONTIS PUNCTULATUS*, Günth. Proc. Zool. Soc. 1889, p. 71, pl. viii. fig. A.

A specimen brought from the Webi Shebeli differs somewhat from the types which were collected on Kilima-njaro. Not only is the upper surface of the head granular, not covered by thin skin as in the types, but also the dorsal fins are more approximated.

11. *CITHARINUS GEOFFROI*, Cuv.

This species extends from the Lower Nile to the Gambia and Niger.

Two very young specimens from Lake Rudolf.

12. *ALESTES RÜPPELLII*, Gthr.

Hitherto known from the Upper Nile.

One very young specimen from Lake Rudolf.

13. *ALESTES AFFINIS*, Günth. Proc. Zool. Soc. 1894, p. 90.

Discovered by Dr. Gregory in the Tana River.

Dr. Donaldson Smith brought home three specimens up to 15.5 cm. in length.

a. b. From the Dawa River (25 & 28.2.95).

c. From the Shebeli River (30.8.94).

14. *DISTICHODUS RUDOLPHI*, sp. n.

D. 21-22. A. 14. L. lat. 100-108. L. transv. $\frac{1}{4}$.

The height of the body is contained $3\frac{1}{2}$ times in the total length (without caudal), the length of the head thrice or $3\frac{1}{2}$ times. Snout rather pointed. Twenty-four teeth in the lower jaw. Silvery greenish on the back, with nine blackish cross-bars and a large black praecaudal spot.

The two specimens being very young, only 54 millim. long, it would not be safe to introduce more characters into the diagnosis of this species. They were obtained from Lake Rudolf.

15. *LABEO GREGORII*, Günth. Proc. Zool. Soc. 1894, p. 90.

Discovered by Dr. Gregory in the Tana River.

Dr. Donaldson Smith brought from the Guaso Nyiro a dried specimen, 22 cm. long, which seems to belong to this species.

Unfortunately the form of the mouth is destroyed, owing to the mode of preservation.

16. BARBUS BYNNI, Forsk.

A large specimen of this common Nilotic species, from the Shebeli River.

Two very young specimens, 10 cm. long, from a stony brook running into the Erer R. (17 & 18.8.94), are probably the same species.

17. BARBUS, sp.

A very young specimen, 5 cm. long, from Lake Rudolf, cannot be specifically determined.

18. MORMYRUS ZAMBANENJE, Ptrs.

In a specimen from Geledi on the Webi Shebeli (19.1.95) the dorsal fin is a little more than half as long as the anal. D. 21. A. 41.

B.

ORDER ARANÆ.

BY EUGÈNE SIMON¹

FAMILY AVICULARIIDÆ.

Harpactira chordata, GERST. (vel species affinis). Sheikh Husein.

Also young indeterminable specimens of *Harpactira* and possibly other genera from Boholgarshan, Somaliland, and west of Shebeli River.

FAMILY SICARIIDÆ.

Loxosceles Smithii, sp. nov. ♂ long. 6 mm.—A *L. rufescens*, L. DUF. differt cephalothorace antice abruptius angustiore, fronte minore, oculis majoribus et inter se confertis, lateralibus a mediis parum distantibus, oculis mediis cum lateralibus anticus lineam compactilem subrectam designantibus, mediis inter se contiguis, lateralibus paulo majoribus et a mediis angustissime separatis et pedibus multo longioribus fere *Pholci*.—Fulvo-rufescens, cephalothorace valde impresso, in medio pilis nigris crassis munito, abdome oblongo obscure fulvo-cinereo, pubescente. — Pedum-maxillarium femur breve, crassum. apice leviter attenuatum, subtus setis validis nigris 2-4 seriatis munitum; tibia patella haud longior sed multo crassior et subglobosa; tarsus tibia saltem haud brevior, latus et convexus sed apice valde acuminatus atque acutus; bulbus subglobosus, depressiusculus, spina gracili longa et recta munitus.

Sheikh Husein (regione Gallarum).

Species oculis confertis pedibusque longissimis eximie distincta.

¹ The list of the species of spiders kindly prepared by Monsieur Simon was arranged according to the localities at which they were obtained. In the following list the species have been classified by Mr. R. I. Pocock under the family headings, in accordance with the arrangement adopted by Monsieur Simon in his latest work.

FAMILY DRASSIDÆ.

Callilepis (Gnaphosa) scioana, PAV. (vel species affinis). 5.6.95.
Megamyrmeicum holosericeum, SIM. Sheikh Husein.

Echemus Pavesii, sp. nov. ♀ long. 4 mm. Cephalothorax oblongus, obscure fusco-castaneus, versus marginem sensim niger, laevis, parce sericeo-pubescent. Oculi antici magni rotundi, in lineam valde procurvam, medii lateralibus paulo maiores, inter se anguste separati sed a lateralibus contigui. Oculi postici in lineam leviter procurvam antice haud (vel vix) latiorem, medii magni, plani, longe triquetri et inter se contigui, laterales mediis multo minores et a mediis anguste separati. Abdomen oblongum fusco-testaceum, subtus dilutius. Sternum pedesque obscure fulvofrufescens, laevia, femoribus ad apicem obscurioribus, metatarsis cunctis tarsisque posticis haud scopulatis, tarsis anticus leviter scopulatis, tibiis quatuor anticus muticis, metatarsis quatuor anticus aculeis parvis basilaribus binis tantum armatis, tibiis metatarsisque posticis parce aculeatis. Plaga vulvæ nigronitida, longior quam latior et subparallelia, in parte antica plagulam cordiformem includens.

5.6.95.

FAMILY ZODARIIDÆ.

Hermippus loricatus, E. SIMON, Ann. Soc. Ent. Fr. 1893, p. 216.
 ♀ long. 14 mm. A mari differt ungue chelarum robusto, et subrecto apice compresso sed supra haud dentato, abdome majore, nigro, supra antice macula media acute lanceolata, utrinque maculis binis elongatis et postice, supra mamillas, vitta longitudinali nodosa, in lateribus linea longitudinali ramosa abbreviata, subtus antice lineolis divaricatis, in medio vitta cruciata antice bifida obscure fulvo-testaceis decorato.

Shebeli River, 13.12.94.

FAMILY ARGIOPIDÆ.

Nephila sumptuosa, GERST. River Darde.

Nephila pilipes, LUCAS. Sheikh Husein.

Argiope nigrovittata, THOR. 9.5.95.

Argiope lobata, PALLAS. 5.6.95.

Argiope trifasciata, FORSK. Sheikh Husein.

Araneus nauticus, L. KOCH. Sheikh Husein; 25.5.95.

Aranus semiannulatus, KARSCH. Sheikh Husein.
Aranus mimosicola, SIM. Sheikh Husein.
Cyrtophora dorsuosa, BLACKW. West of Shebeli River; Darde River.
Cyrtophora citricola, FORSK. Sheikh Husein.
Cyclosa insulana, COSTA. Darde River.
Argyropeira undulata, VINSON 5.6.95; Sheikh Husein.
Argyropeira ungulata, KARSCH (vel species affinis). Edzehr, in the Boran country. 5.4.95.
Tetragnatha nitens, AUD. 5.6.95.

FAMILY THOMISIDÆ.

Thomisus spinifer, CAMBR. 5.6.95.
Thomisus alboliertus, SIM. Berbera. 2.7.94.
Squama diana, AUD. Sheikh Husein.
Platythomisus sexmaculatus, sp. nov. ♀ (pullus) long. 12 mm.
 Cephalothorax lœvis, lœte rufus, flavidо-reticulatus, anguste nigro-marginatus, antice, in regione frontali, vitta transversa lata nigra ornatus. Oculi *Platythomisi heraldici*, KARSCH. Abdomen magnum, ovatum, depressiusculum, pallide luteum, supra omnino nigro-marginatum et maculis nigris sex biseriatis (anticis ovatis, medianis magnis triquetris, posticis minutis transversis) decoratum, subtus mamillis nigro-cinctis. Chelæ rufescentes, extus late nigro-vittatæ. Sternum fulvum in medio confuse fusco-maculatum, pedum coxæ trochanteres femoraque pallide lutea, reliqui articuli intense nigri, tibiis muticis, metatarsis aculeis parvis numerosis et biseriatis subtus instructis.

A *P. heraldico* KARSCH, cui affinis est imprimis differt pictura abdominis pedumque.

W. Shebeli River. 15.12.94.

FAMILY CLUBIONIDÆ.

SUB-FAMILY Sparassinae.

Selenopes ægyptiacus, AUD. Sheikh Husein.
Sparassus walckenaerii, AUD. Berbera. Bohalgarshan. 5.6.95.
Sparassus lœvatus, sp. nov. ♀ long. 16 mm. A *S. walckenaerii* AUD., cui valde affinis et subsimilis est tantum differt magnitudine minore, oculis quatuor anticus in lineam leviter recurvam, inter se inquis, mediis lateralibus saltem $\frac{1}{4}$ minoribus (in *S. walckenaerii*

oculis anticis inter se subæquis) et plagæ genitalis fovea testacea anteriore triquetra haud longiore quam latiore (in *S. walckenaerii* multo longiore quam latiore). Cephalothorax, sternum pedesque fulvo-rufescens, sericeo-pubescentia, abdomen oblongum fulvo-cinereum luteo-pubescentia, *concolor*.

Shebeli River. 13.12.94; 1.9.94.

Sparassus vestigator, sp. nov. ♀ long. 19–22 mm. A *S. argelasii* cui affinis et subsimilis est differt feminæ plaga genitali fovea testacea anteriore multo majore late cordiformi et longitudinaliter sulcata (in *S. argelasii* anguste triquetra) et tibia pedum-maxillarium maris breviore, extus tuberculo obtuso valido et divaricato submedio apophysique apicali, infra directa, valde compressa et obtusa armata, tarso paulo latiore. — Cephalothorax fusco-rufescens, longe et crebre albido-cinereo pubescens. Abdomen oblongum, fuscum, fulvo-cervino longe et crebre pubescens, supra vitta media postice attenuata, subtus lineis quatuor apicem haud attingentibus (medianis rectis, lateralibus angustioribus atque arcuatis) notatum. Chelæ nigræ, albido-pilosæ. Sternum fulvum. Pedes longi, obscure rufescentes et albido-pilosæ, tibiis subtus annulis nigricantibus binis ornatis.

Shebeli River. 5.6.95.

FAMILY UROCTEIDÆ.

Uroctea limbata, KOCH, var. *concolor*, SIM. 5.6.95.

FAMILY AGELENIDÆ.

Agelena leucopyga, PAV. Sheikh Husein.

FAMILY PISAURIDÆ.

Thalassius unicolor ♀ long. 20 mm. (ceph. th. long. 9 mm., lat. 8,2 mm.). — Omnia fulvo-rufescens, cervino-pubescentia. Cephalothorax non multo longior quam latior. Oculi quatuor medii aream paululum depressam, subparallelam et vix longiore quam latiore occupantes, antici posticis paulo minores. Oculi laterales antici reliquis oculis minores, a mediis anticis et mediis posticis fere æquidistantes et cum mediis posticis lineam valde procurvam designantes. Clypeus area oculorum mediorum latior. Chelarum margo inferior dentibus trinis æquis inter se æque et sat late

sejunctis armatus. Pedes longi, aculeis ordinariis instructi. Area genitalis fovea anteriore magna testacea ovato-transversa, haud carinata, et postice margine lato nigro obtuse exciso et in medio sulcato, notata.

A *T. fimbriato* WALCK. imprimis differt area oculorum mediorum non multo longiore quam latiore, cephalothorace abdomineque concoloribus haud albo-marginatis, a *T. (Cteno) pallido* L. KOCH magnitudine duplo majore et fovea genitali haud carinulata.

W. of Shebeli River. 6.12.94.

Tetragonophthalma bilineata, PAVESI. 5.6.95.

FAMILY LYCOSIDÆ.

Lycosa tarentulina, AUD. Boholgarshan.

Lycosa raffrayi, SIMON. Sheikh Husein.

Lycosa (Trochosa) ferox, LUC. 5.6.95.

Ocyale atlanta, AUD. Sheikh Husein. W. of Shebeli River.

FAMILY OXYOPIDÆ.

Oxyopes baccatus, sp. nov. ♀ long. 5 mm. Cephalothorax luridus antice paulo infuscatus, vitta media antice evanescente et utrinque vitta longiore nigricanti-pilosus ornatus, regione oculorum nigra sed crebre niveo-squamulata, clypeo chelisque antice linea nigra exillima, apicem haud attingente, notatis. Oculi ordinarii. Abdomen oblongum, fulvum, albo fulvoque pubescens et squamulatum, utrinque, præsertim postice, nigricanti-variegatum et submarginalatum, subtus niveo-squamulatum et vitta media, intense nigra, ornatum. Mamillæ fulvo-rufescentes. Sternum olivaceum. Pedes omnino luridi, aculeis longis ordinariis armati. Vulva unco acuto et antice inflexo, ad basin fulvo ad apicem nigro munita.

♂ long. 4.5 mm. Cephalothorax fulvus, concolor, squamulis albis micantibusque mixtis vestitus. Abdomen atrum, supra squamulis grossis albis roseo-tinctis et micantibus vestitum, subtus in medio albo-opaco utrinque micanti squamulatum. Pedes-maxillares fusci vel nigri, interdum fulvi, tarso nigro; patella brevi, subtus crebre nigro-crinita; tibia patella vix longiore, longe aculeata, apophysi carente sed extus ad marginem inferiorem, prope medium, minute et acute dentata et subtus ad apicem crasse marginata; tarso sat late ovato sed acuto, extus ad basin tuberculo, obtuso apice et testaceo subpellucenti munito.

Sheikh Husein (Reg. Gallarum); 5.6.95.

Peucetia luteiceps, sp. nov. ♂ long. 16 mm. Cephalothorax chelæ, partes oris, sternumque pallide lurida, concoloria, nec lineata nec punctata, regione oculorum nigra crasse albo-pilosa. Oculi ordinarii. Abdomen angustum et longum, læte viride, subitus lineolis parallelis albis decoratum. Pedes longi, luridi, versus extremitates paulo obscuriores, femoribus anticis subitus nigris parvis (8-10) uniseriatis ornatis, aculeis ordinariis, nigris et longis. Pedes-maxillares longi, tarso infuscato; patella longa ad apicem aculeo valido et longo armata; tibia patella longiore, ad basin graciliore, versus apicem leviter ampliata, curvata et utrinque prope medium, aculeo divaricato longissimo armata; tarso angusto apice abrupte angustiore et producto; bulbi apophysi exteriore divaricata rufula valde singulari, ad radicem angustissima, in medio, antice valde dilatata et obtusissime triquetra, ad apicem abrupte angustiore sed obtusa.

A *P. lucasi* VINSON, *pulchra* BLACKW., *striata* KARSCH, et *fasciiventris* E. SIM. præsertim differt clypeo chelisque concoloribus haud striatis a *P. arabica* E. SIM., imprimis differt strucutra pedum-maxillarium maris.

5.6.95.

FAMILY ATTIDÆ.

Plexippus paykulli, AUD. Berbera 2.7.94.

Menemerus brevipalpus, THOR. Berbera 4.7.94.

Thyene imperialis, ROSSI. Berbera 2.7.94.

Also some young and unidentifiable examples of *Thyene* and *Plexippus* from Sheikh Husein.

C.

SOLIFUGÆ, SCORPIONES, CHILOPODA,
AND DIPLOPODA.

By R. I. POCOCK.

ORDER SOLIFUGÆ.

Galeodes arabs, C. KOCH.

KOCH, Die Arachniden, xv. p. 88; POCOCK, Ann. Mag. Nat. Hist. (6), xvi. p. 77.

Of this species which ranges throughout Arabia, and from Egypt southwards into Somaliland, Dr. Smith obtained two female examples, one from Berbera and the other from Shebeli.

Solpuga brunnipes, L. DUFOUR.

DUFOUR, Hist. Nat. Galeodes, p. 52, Pl. II. fig. 6 (1861).

A single female example obtained at (5.6.95), agrees closely with the description of this species published by Simon (Ann. Soc. Ent. Fr., 1879, p. 113), and also appears to be identical with an example from Algeria in the collection of the British Museum.

The species has previously been recorded from Agaos in Abyssinia by Simon, and from Arramba in the same country by Pavesi (Ann. Mus. Genova, xx. p. 7).

Zeria bicolor sp. nov.

Color: head fulvous, laterally infuscate, ocular tubercle black; mandibles fulvous; palpi strongly infuscate, with the exception of the coxa, trochanter, and the base of the femur, which are pale; the apex of the femur on the first leg fuscous; the upper surface of the femur and the distal end of the patella of the second leg fuscous; in the third leg the upper side of the trochanter and of the femur and the anterior side of the patella fuscous, and in

the fourth leg the femur, patella, and proximal end of the tibia are fuscous; for the rest, the appendages are yellowish white; cephalothorax and abdominal terga infuscate, the latter, in the posterior half of the abdomen, pale.

Head plate bristly, wide, its width equal to the length of the protarsus of the palp, and much greater than its own length; its anterior border straight; ocular tubercle large, wider than long, and moderately high, the width between the eyes exceeding the diameter of an eye; the tubercle furnished in front with two long, stout, forwardly directed bristles, behind which there are two rows of much shorter, finer bristles, passing between the eyes to the posterior part of the tubercle.

Mandibles stout, the basal segment externally swollen, studded above and externally with long, stoutish bristles; the stridulating ridges ten in number and strong; the inner surface of the two jaws bristly, the bristles on the basal half of the immovable jaw barbed on both sides, those forming the upper row on the movable barbed along their posterior edges; the upper jaw armed internally with a series of four stout bristles; teeth, in addition to the short, stout, terminal fang, seven in number, of which the second is enormously large, and the sixth and seventh the smallest; in addition to these there is a single, moderately large, conical fang on the inner surface on a level with the area between the sixth and seventh teeth of the outer set; the movable jaw armed with three teeth, two large and conical, and one small one between them, but closer to the posterior; the flagellum consisting of a high, convexly margined, basal lamina; the filiform portion curving abruptly backwards on a level with the first tooth and passing back to a simple point on a level with the posterior ends of the stridulating ridges.

Rostrum, with its terminal portion bent slightly over, the upper edge of the inclined portion tricarinate, the lower lobe on each side ending in a long, feathery bristle, the usual feathery tuft or beard overhanging the aperture of the mouth.

Palp: maxillary process moderately long; femur distal strongly incrassate, hairy; patella moderately robust, about six times as long as broad, hairy, but armed below with a number of short, spiniform bristles; tibia and tarsus also armed below with short, spiniform bristles, tarsus immovably articulated to the tibia. Tibia of second and third legs armed above with five spines in a single series, and below distally, with four spines in two pairs, mixed

up with the setæ and not always easy to distinguish; the tarsi 4-segmented, the basal segment a little longer than the other three, armed with five pairs of spines below, the second segment with a pair of long spines; the third unspined, and the fourth with a pair of long spines; tibia of fourth leg with three spines in front and two behind; tarsus composed of seven segments, the basal with five pairs of spines, the second, third, fifth and seventh with one pair each.

Measurements in millimetres: total length of body 25; of head, 5; width of head, 7.5; length of mandible, 9; of palp (from base of femur), 30; of fourth leg from base of femur, 30.

Two male specimens, of which the label was unfortunately obliterated.

This species which apparently falls into the genus *Zeria* differs from the species of *Solpuga* in having only two long bristles in front of the ocular tubercle instead of a thick cluster, and the extremity of the rostrum somewhat strongly deflexed, whereas it is horizontal in *Solpuga*. It is evidently allied to the Algerian *Zeria persephone*, Sim., which is known to me merely from fragments of a female specimen, the two having apparently the same bristle-armature on the ocular tubercle; but the rostrum of *persephone* appears to be horizontal at the tip like that of *Solpuga*.

Biton fuscipes, sp. n.

Closely related to *B. brunnipes*, Poc.¹ from which it differs principally in color, the tibia, protarsus, and tarsus of the palp being wholly infuscate, as well as the distal end of the femur; the remaining appendages are also more infuscate; the whole of the femur, with the exception of a small area at the base, and the tibia of the fourth, being uniformly brown. In *B. brunnipes*, as in *Galeodes arabs*, the palpi have a variegated appearance, owing to the fact that, although mostly brownish black, the tarsus, the extremities of the protarsus, and of the tibia are yellow; the same pattern obtaining in the fourth leg, the joints being yellow.

In *fuscipes*, too, the dentition of the mandibles is stronger, the teeth being both larger and sharper. In other characters, however, such as spine-armature of legs, etc., the two are apparently alike. On the inner side of the apex of the protarsus of the palp there is a very distinct spine amongst the setæ.

¹ Ann. Mag. Nat. Hist. (6), xviii. p. 185, 1896.

Measurements in millimetres: total length (including mandible), 21; length of mandible, 5; of head, 3.3; width of head, 4.

A single ♀ example from Lumano, in Somaliland, 2,000 ft.

Possibly this new form will prove to be the ♀ of *B. lividus* Simon,¹ from Assouan in Egypt.

Paracleobis nigripalpis, sp. n.

Color: head grayish-brown; mandibles clear ochre yellow, with black teeth; palpi with the two basal segments and the proximal end of the femur pale; the rest of the femur and the three distal segments strongly infuscate; the patella, however, rather paler and browner than the tibia and tarsus, which are black; legs mostly pale yellow, the first, however, lightly infuscate distally, and the fourth infuscate towards the tip of the femur; abdomen with the terga infuscate.

Head flattish above, sparsely bristly, its anterior border convex, a deep median longitudinal furrow; ocular tubercle furnished with three pairs of bristles in front and a pair behind; the eyes prominent, the space between them perhaps rather less than a diameter.

Mandibles long, bristly above and externally; the stridulating ridges seven in number; the inner surfaces of the two jaws bristly, the bristle nearest to the teeth being normally feathery; the upper jaw armed with ten teeth, including the two which are situated internally at the base and are of large size; the first two teeth large and conical, the fourth also large, but the third much smaller; those situated externally at the base of medium size; the lower jaw with one small tooth between the large ones and close to the base of the posterior.

Rostrum horizontal, its upper edge concave, convex at the apex; the apex of its lower lip projecting beyond that of the upper and furnished with the usual pair of feathery hairs.

Palpi with femur and patella fusiform, broader mesially than at the apices; the tibia regularly incrassate, narrowest at the base; both the patella and the tibia furnished below with two series of longish spines, mixed up with bristles.

Legs unarmed except for the tibiæ of the second and third which are furnished above with three spines, those on the second leg weaker and mixed up with setæ; those on the third strong and prominent, the fourth leg bristly but not spiny.

¹ Ann. Mus. Genova, xviii. (1883), p. 252.

Measurements in millimetres: total length of trunk, 11; of mandible, 3.5; of palp, from base of femur, 8.5; of fourth leg, 10; width of head, 3; length, 2.3.

Locality, Turfa, in Somaliland.

This species resembles both *atlantica*, Sdm. (Ann. Soc. Ent. Fr. 1879, p. 132) from the Cape Verde Islands, and *balfouri*, Poc. (Ann. Mag. Nat. Hist. (6) xvi. p. 95) from Socotra in having the lower surface of the patella and tibia of the palp spiny. It appears, however, to differ from both in having the distal end of the femur and the patella of the palp infuscate.

Rhax smithii,¹ n. sp.

♂ Allied to *R. ornata*, Poc. and *R. phillipsii*,² Poc. Head coal black with the antero-lateral angles widely flavous; posterior two thoracic segments quite pale; abdomen black above, with fourth and fifth, and eighth and ninth terga pale, the two former with a medium black spot; mandible rich yellowish red above, black at the sides basally as in *ornata*; legs of the last three pairs entirely pale without trace of spots; palpi and legs of first pair also pale, except at the tips, the palpi having the tarsus and the distal two-thirds of the protarsus quite black as in *ornata*, and the first leg having the tarsus and distal end of the protarsus also black. The maxillary process and trochanter of the palp as well as the front edge of the femur slightly infuscate.

Measurements in millimetres: total length, including mandible, 40; length of mandible, 14; of head, 6; width of head, 10.

Two male examples from Aseba in the Boran country, 3000 ft. altitude.

Taken at the same time and at the same place as the males described above is a young ♀ (19 mm. long), which differs considerably from them in coloring. Thus the coxae of the palpi and of the first, second, and third legs are strongly infuscate; the palpus has the lower edge of the femur black, and a wide black band round the tibia; there is also a black spot on the lower surface of the femur of the first leg, and another upon that of the third. The young of this species thus approaches *R. ornata* more than the adult does.

A fourth specimen, an adult ♀ without special locality, resem-

¹ Ann. Mag. Nat. Hist. (6), xvi. p. 93, pl. iv. fig. 2, 1895. From Mombasa.

² Ann. Mag. Nat. Hist. (6), xviii. p. 185, 1896. From North Somaliland.

bles the adult ♂ in color characters, except that the yellow patches on the side of the head are reduced to marginal bands and the fourth and fifth and eighth and ninth terga are only pale posteriorly. Until evidence to the contrary is forthcoming, it may be assumed that this specimen is the ♀ of *R. smithii*.

ORDER SCORPIONES.

Ægyptische und Abyssinische Arachniden, p. 1, Pl. I., fig. 1, *Nürnberg*, 1875.

Scorpio bellicosus, L. KOCH.

Three female examples, referred with some hesitation to this species, were collected, of which unfortunately only one, the smallest, is labelled with an exact locality. This was obtained near Aimola in the Boran country, 3,000 ft. 23.3.95. Fortunately this example has the carapace of almost exactly the same length as the female example of *Sc. cavimanus*, POC., from Ugogo, mentioned in Ann. Mag. Nat. Hist. (6), xvi. p. 431; and since it is largely upon the differences in measurements presented by these two specimens that the examples obtained by Dr. Smith are referred to *bellicosus* rather than to *cavimanus*, I give here their measurements in millimetres:—

♀ of *cavimanus* from Ugogo. Total length, 92; length of carapace, 16; of tail, 46; of caudal segment, 1 and 2, 12; of 4 and 5, 17.3; length of hand-back, 8.5; width of hand, 14; length of immovable digit along its free (untoothed) edge, 7.5; width of the same at the base, 5.

♀ of *bellicosus* from the Boran country. Total length, 82; length of carapace, 15.5; of tail, 37; of its 1st and 2d segments, 10; of 4 and 5, 13; length of hand-back, 7.6; width of hand, 11; length of immovable digit along its free edge, 8.5; width of latter at base, 3.8.

These data show (1) that the tail as compared with the carapace is much shorter in *bellicosus* than in *cavimanus*, the carapace in the former being shorter than the 4th and 5th caudal segments, whereas in the latter it is longer; and (2) that the immovable digit in *cavimanus* is much wider at the base as compared to its width than in *bellicosus*. Corresponding features are presented by the two larger specimens, which are about 113 mm. in length, with the

carapace 18.5; and also, judging by Koch's figure, the type specimen which, with its large number of pectinal teeth, is probably a male, shows similar differences from the specimens of *carinatus*.

Scorpio gregorii, POC.

Ann. Mag. Nat. Hist. (6), xvii. p. 432, Pl. XVIII., fig. 3 (1896).

An adult ♀ example, without special locality; but since *Sc. Gregorii* is a more southerly type than *Sc. Smithii*, and has been recorded from Tzavo, Kinani, and Tanganyika, it seems probable that this example was obtained on the homeward march.

This specimen agrees with those obtained by Dr. Gregory in all specific features; it is interesting to observe, however, that there are only 15-16 pectinal teeth.

Scorpio smithii, sp. n.

♀ closely allied to *Sc. phillipsii*.¹ POC., from Dooloob in Somaliland, from which apparently it differs only in the size and sculpturing of the hand.

In *phillipsii* the upper surface of this organ is covered with rounded or elongate and often fusing tubercles, which show a tendency towards dying away upon the posterior lobe of the hand, the edge of which is smooth; but in *Sc. smithii* the upper surface of the hand is covered with definitely shaped conical or acute tubercles, which show no tendency to fusion, and do not disappear upon the posterior lobe, the margin of which is denticulate right up to the articular socket of the brachium. The inner border of the hand, too, is more convexly produced from the base of the immovable digit, which imparts a greater width to the organ and makes it exceed the length of the carapace. Width of vesicle equal to width of 4th segment, height of it less than width of 5th. Number of pectinal teeth, 18-19.

Measurements in millimetres: Total length, 100; length of tail, 53; of carapace, 15; length of hand-back, 9.5; of movable digit, 15; width of hand, 15.5. Loc. Turfa.

♂ A male example closely resembling the ♀ in all characters except those attributable to sex has unfortunately had the date on its label obliterated. It cannot consequently be assigned to any locality, though from its close resemblance to the ♀ it seems not

¹ Ann. Mag. Nat. Hist. (6), xviii. p. 181, 1896.

unlikely that it also came from Turfa or some neighboring spot. The terga are granular throughout, except for the smooth prominence in the middle, and more coarsely behind than in front. The tail is about four times the length of the carapace, which is slightly shorter than its 1st and 2d segments; the vesicle is much enlarged, its height being equal to the width of the 4th segment and its width to the width of the 2d. The chelae are like those of the ♀ in sculpturing, — except that the external keel is distinctly crenulate, — but the posterior lobe is a little more widely rounded. The digits are dentate as in the ♂ of *phillipsii*, and *exitialis*. Pectinal teeth, 19.

Measurements in millimetres: Total length, 105; length of tail, 56; of carapace, 14; of hand-back, 10; of movable digit, 14.2; width of hand, 15.

Four other examples were also obtained, and these differ from the two described in having the legs reddish brown or reddish green in color instead of a bright reddish yellow. In this character they show resemblance to *Sc. gregorii* and not to *Sc. phillipsii*. But in the sculpturing of the hand they are evidently one with *Sc. smithii*.

The following characters about them may be noticed: —

(1) ♀ from Silul in Somaliland. Total length, 114 mm.; length of tail, 57; of carapace, 16.2.; width of hand, 17.3; length of movable digit, 15.5. Pectinal teeth, 19-20.

(2) Smaller ♀ from Hargesa in Somaliland, 5,000 ft. alt. Total length, 106; length of tail, 51.5; of carapace, 15; width of hand 14.5; length of movable digit, 16. Number of pectinal teeth, 18. Thus in this example the hand is not so wide as in the preceding, being less than the length of the movable digit.

(3) ♂ (without special locality). Total length, 110; length of tail, 59; of carapace, 15; width of hand, 15.5; length of digit, 16.5; pectinal teeth, 21. The hand is very coarsely and sharply tubercular all over, the margin especially so, and the external crest is distinctly denticulate posteriorly. As in the type ♂ example, the vesicle is much swollen, its width equalling the width of the 2d segment and its height the width of the 3d.

(4) Younger ♂ (without special locality), with carapace 12.5 mm. and tail 51, agrees with the ♂ mentioned above, except that the vesicle is smaller. Both of them differ from the ♂ type example in having the hand a little narrower than the length of the movable digit. Pectinal teeth, 21-21.

Two immature examples, apparently belonging to this species, but having the tubercles on the hand less conical and acute, were also obtained at Abdeh, 3,000 ft. and Boholgarshan in Somaliland.

It is interesting to notice that in the six adult examples the width of the hand exceeds the length of carapace, whereas in the three known specimens of *Sc. phillipsii* the hand is narrower than the length of the carapace.

The relation of this species to the rest of the section to which it belongs is shown in the following key: —

a. Lower surface of humeral segment of chela coarsely granular at the base; hand furnished below with two coarsely granular crests; lower surface of fourth tarsus armed with three or four spines behind and two in front; tarsal lobes with three spines, the upper strong. *exitialis*, POC.

b. Lower surface of humeral segment of chela smooth below; hand not crested below; lower surface of fourth tarsus with six spines behind and three or four in front; upper spine of tarsal lobe weak or absent (i. e., represented by a bristle).

a¹ Tarsal lobe armed with three spines, the uppermost on the apex but smaller than the lower ones, and filiform at the tips; manus flatter, with the sculpturing spreading over the lobe.

a² Ornamentation of hand consisting of conical tubercles; inner margin of the hand distinctly tubercular from base of finger to articulation of wrist; hand wider than length of carapace; pectinal teeth, 18-21. *smithii*

b² Ornamentation of hand consisting of lower rounded or irregular shaped, often anastomosing tubercles; lobe of the hand with smooth posterior margin; length of carapace exceeding width of hand; pectinal teeth, 15-17. *phillipsii*, POC.

b¹ Tarsal lobe without a superior apical spine, armed here with bristles; hand more strongly convex, its tubercular ornamentation weaker than in *phillipsii* and failing on the posterior extremity of the lobe, which is smooth above. *gregorii*, POC.

Uroplectes fischeri (KARSCH).

Lepreus fischeri, KARSCH, Mitth. Münch. Ent. Ver. 1879, p. 124.

Lepreus vittatus, THOR., Kraepelin, J. B. Hamb. Wiss. Anst. viii. pp. 95-96, 1891 (at least in part).

The species originally recorded from Barawa in Somaliland by Karsch, and subsequently from Mombasa by myself, was obtained

by Dr. Donaldson Smith at the following localities in Somaliland: Turfa, and Lummo, 2,000 feet.

The color of the four specimens procured is very constant, the ground tint being yellow; on the carapace, however, there is a black interocular triangular patch, extending also as a narrow strip towards the hinder margin, which is itself narrowly banded transversely; the anterior six terga bear a pair of black blotches, which conjointly form a continuous double black band, interrupted, however, on each plate by an indistinctly defined, $><$ shaped yellow stripe; the seventh tergite has only a couple of small black spots in front; the fifth segment and vesicle of the tail are pale brown, and the lower surfaces of the first four segments are three-spotted, two spots being in front and one behind in the middle; on the chelæ the hands only are dark, being lined with black and the interstices between the stripes filled in with a net-work of fine pigment lines. Some newly born young from Turfa, measuring about 7 mm. each, resemble the adults in color, with the exception that the vesicle and last segment of the tail are entirely deep black.

The example from Lummo is a male, but it does not differ strikingly from the female; the tail however is a little longer, being about six times instead of five times the length of the carapace, and the vesicle is slightly flattened below at the base. In the female also the basal pectinal tooth is expanded but not longer than the rest.

Dr. Smith also procured an example of the "form" I described as *fischeri*, var. *nigrimanus* (P. Z. S. 1890, p. 130, Pl. XIV, fig. 2), but unfortunately the exact locality was not noted. This differs from those recorded above in having the mandibles infuscate, only the sides of the carapace yellow, the rest being deep green, the dark stripes on the terga much wider and the last one deep blackish green in front. A difference between this specimen, however, and the type is observable in the pigmentation of the tail, for whereas in the type there is a fine black band running throughout the length of the lower surface of the second, third, and fourth segments, the median posterior spot is not even present on the second and third segments in Dr. Smith's examples.

It is difficult to decide, from Karsch's description, whether he had before him examples of the *nigrimanus* type or of the paler form described above.

Buthus emeri, POCOCK.

Ann. Mag. Nat. Hist. (6), vi. p. 98, 1890.

Locality, near Aimola in the Boran country, 3,000 ft. and several specimens without locality.

Buthus polystictus, POCOCK.

Ann. Mag. Nat. Hist. (6), xviii. 1896, p. 178, Pl. XI. fig. 1.

Locality, Turfa, in Somaliland; Shebeli River, and west of Shebeli River, previously recorded from the Goolis Mountains, inland of Berbera.

Parabuthus heterurus, sp. n.

Closely allied to the species inhabiting the countries bordering the Red Sea, e. g., *liosoma*, *hunteri*, and *granimanus*, but differing from these three in having the 5th segment of the tail yellow and not infuscate, while the 4th segment and the vesicle are normally deeply infuscate. A tendency towards the paleness of the segment is very visible in some specimens of *granimanus*, but from the latter *heterurus* may be recognized by having the hands smooth, punctured, and not granular. In having the hands smooth and punctured, the species lies close to *liosoma* and *hunteri*; but, apart from the coloring of the 5th caudal segment, it may be recognized from the former by its longer, narrower tail. In the latter respect it approaches *hunteri*, but the tail segments are broader and the digits are not basally toothed.

The typical examples present the following measurements:—

♀ Total length about 90 mm.; length of carapace, 9.5 mm.; of tail, 50 mm.; width of 1st and 4th segments, 6.5 mm.; length of 1st, 6.3 mm.; of 4th, 8.5 mm.

♂ Total length, 85 mm.; length of carapace, 8.8 mm.; of tail, 52 mm.; width of 1st and 4th segments, 6.5 mm.; length of 1st, 6.5 mm.; of 4th, 9 mm.

Locality, Hargesa, 5,000 ft. and Silul, in Somaliland; Shebeli River, TYPES; and from pools of water to the west of Shebeli River, 15.12.94.

Parabuthus sp.

A single male example from the Shebeli River (24.8.94) resembles the preceding, but has the 5th caudal segment infuscate, and both it and the 4th very weakly keeled below. Without further specimens it is difficult to form an estimate of the value of these characteristics.

CLASS **CHILOPODA** (CENTIPEDES).1. *Scutigera rugosa*, NEWPORT.

Ann. Mag. Nat. Hist. xiii. p. 95 (1844).

Locality "near some pools of water a little to the west of Shebeli River."

This species, recognizable by the conspicuous black and yellow banding of terga and legs, is widely distributed in Eastern Tropical Africa.

2. *Pseudocryptops walkeri*, POC.

Ann. Mag. Nat. Hist. pp. 225-227, Pl. V. figs. 3-3 c (1891).

Locality, Turfa in Somaliland, dry country, 13.8.94; Shebeli River, 24.8.94; a little to the west of Shebeli River, 15.12.94.

This rare and interesting species has hitherto been known from a single specimen obtained on Perim Island in the Red Sea.

3. *Cormocephalus mirabilis*, PORAT.

Bihang Sv.-Vet. Akad. Handl. iv. No. 7, pp. 18-19 (1876).

Locality, Boholgarshan in Somaliland. Recorded originally from the White Nile, and subsequently from the Goolis Mountains inland of Berbera.

4. *Rhysida paucidens*, sp. n.

Color olive green, with a deeper band along the posterior border of the terga; legs yellowish, the last pair a bright green; antennæ with the three basal segments green, the rest ochre yellow. Head smooth, antennæ of medium length, composed of eighteen or twenty segments, whereof the basal three are naked and the rest pubescent. Maxillipedes sparsely punctured; precoxal plates contiguous, each armed with four teeth; femoral process strong. Terga mostly smooth, only obsoletely wrinkled mesially and laterally from the 5th bisulcate, from the 10th with raised margins. Sterna smooth, at most marked in front with two abbreviated sulci and a shallow posterior median impression. Anal tergite with a shallow posterior median impression, pleuræ with process moderately elongate and tipped with two spines; sternite poste-

riously emarginate; legs long and slender, about as long as the last six segments of the body; femur armed in its basal half with three or four strong spines, one or two close together on the upper inner edge, and 2 on the under surface, one outer and the other inner; the rest of the femur and of the other segments unarmed; protarsus without a spur, the femur and patella with a transverse annular groove at the distal end beneath. The rest of the legs armed with two protarsal spurs, except those of the 20th pair, which have but one.

Length up to 53 mm.

Locality. Loga in the Arusa Galla country (3,400 ft.)

Recognizable from all the described species by the armature of the anal legs; but most nearly allied apparently to *R. longicornis*, POC. from Socotra.

5. *Dacetum trigonopoda*, LEACH.

Zoöl. Misc. iii. p. 36.

Locality. 23.10.94 (? Sheikh Husein); 4.7.95; 9.5.95; 28.6.95. This species seems to be abundant over the whole of Central Africa.

6. *Lamnonyx punctifrons*, NEWPORT.

Ann. Mag. Nat. Hist.

Locality, Sheikh Husein, 11.10.94.

CLASS **DIPLOPODA** (MILLIPEDES).

Astrodesmus concolor, sp. n.

Very closely allied to *Astrodesmus contortus*, POC.,¹ obtained by Dr. Gregory at Mkanumbi in East Africa, but broader, owing to the greater size of the keels, of which the margins are thicker, so that when viewed from above the pores appear to look more upwards, a larger piece of the border being visible below the pore; the copulatory organs of the male are also different, the apical expansion being broader. In both the species there are three

¹ *Eurydesmus contortus*, POC., Ann. Mag. Nat. Hist. (6), xvii. p. 436; the apex of the copulatory organ in this species is not accurately figured.

spines on the thickened part just below the curvature, two longer ones on the inner side, and one short one on the outer side. In *A. concolor* also the process on the sternum of the sixth segment is broader, with the median apical lobe more widely rounded.

Length, 24 mm. ; width, 6 mm.

Locality: 29.3.95.

The two species here under discussion certainly differ from the type *A. stellifer*, COOK (Proc. U. S. Mus. xviii. p. 86), from the Tana River, East Africa, in being much smaller, the latter being sixty-five millimetres long, while *contortus* is twenty-five ; the form of the copulatory feet is also certainly different, and I do not notice in either species the tubercles on the legs that Cook has figured.

GENUS ODONTOPYGE, BRANDT.

Representatives of two species of this genus were obtained at Darde River, in Somaliland, and 5.6.95 ; but since a single female only was acquired at each locality, it is hardly possible either to identify or give a satisfactory diagnosis of them.

Archispirostreptus phillipsii, POC.

Ann. Mag. Nat. Hist. (6), xviii. p. 187, Pl. XI. fig. 5.

Locality: River 'Web,' running into the River Jub.

A single male example of this species, recorded originally from the Goolis Range, inland of Berbera, Somaliland, was procured.

Archispirostreptus dodsoni, sp. n.

♂. Color (in alcohol) : posterior half of segments behind the groove deep blackish-brown, the anterior part yellowish-red, legs and antennæ also deep olive-brown ; lower half of face suffused with reddish-brown.

Head nearly smooth above and between the antennæ, the frontal sulcus conspicuous, traces of a fine interocular groove ; the lower portion of the face above the labrum punctured and striate. Eyes composed of about sixty ocelli arranged in six longitudinal and twelve vertical rows ; antennæ with their basal four segments nearly equal to the length of the face. First tergite expanded laterally, with anterior angle a little produced, crossed by about six weak longer and shorter sulci. The rest of the segments, with the posterior

portion, finely punctulate, the sulcus tolerably strong; the anterior part furnished with about ten fine transverse crests; the longitudinal striæ extending upwards beyond the pore. Anal segment short; tergite short, its posterior border above densely punctured in the middle line and slightly produced into a bluntly rounded prominence which barely covers the apices of the valves; margins of valves weakly compressed. Legs, except those of the first and second pairs, and those on the posterior somites, with the fourth and fifth segments, padded distally.

Copulatory feet; the shorter branch of the flagellum stout, cylindrical, armed distally with a number of branched spiniform processes, the long branch thinner coiled, with a short basal process and a bifid apex. Number of segments, 71. Length, about 220 mm. Width, about 17.

♀. With face rather more coarsely sculptured below, and nearly as long as the five basal antennal segments; anterior angle of the collum not produced; number of segments, 71; length, (?) ; width, 17.5. A second ♀, without locality, has 68 segments.

Locality, 3.10.94, Sheikh Husein, Arusha, in the Galla country, over 5,000 ft., wet and luxuriant (type ♂). "Pools of water to the west of Shebeli River, 18.12.94, (?)"

Archispirostreptus smithii, sp. n.

Very closely allied to the preceding, from which it differs apparently only in the following particulars: —

♀ The first tergite or collum is crossed transversely by only two complete sulci, one near the margin and the other considerably higher up. The margins of the anal valves are strongly compressed; number of segments, 64. Length apparently about the same; width, 19 mm.

♂ The anterior angle of first tergite widely rounded, not produced as in *dodsoni*; copulatory feet a little different, though very similar, the lateral pieces raised much higher above the central sternal plate.

Number of segments, 60; length, about 145 mm.; width, 13.5.

Locality (♂), "Aimola in the Boran country, 3,000 ft. alt., well watered;" (♀), Somaliland, 12.12.94; "The Haud, a huge plateau in Somaliland, 4,500 ft. alt."

The two species of *Archispirostreptus* here described are unmistakably allied to *A. bottae* from Archeisa in Somaliland, and to *A.*

beccarii from Cheren in Abyssinia, recently described by Silvestri (Ann. Mus. Genova (2), x. pp. 489-490, 1895). I do not, however, feel justified in attaching Silvestri's names to either of Dr. Smith's species, in view of the figure of the copulatory organs of his species that Silvestri has published. Differences, moreover, are observable in the number of segments, both the forms described by Silvestri having but 54-56 segments. Perhaps, however, no great stress is to be attached to this character.

D.

List of the Lepidoptera Heterocera collected by Dr. A. Donaldson Smith. By W. J. HOLLAND, Ph. D., LL. D., F. Z. S., F. E. S., Chancellor of the Western University of Pennsylvania.

I am greatly indebted to Dr. A. Donaldson Smith for the privilege of adding to my collection of African moths all the specimens which he collected during his extensive travels. Unfortunately many of the smaller species have been more or less injured, and in some instances the wings are so thoroughly denuded of scales that it is impossible to determine them correctly. The collection, though quite limited in extent, contains several species which are new to science, and it gives me great pleasure to describe them in the following pages.

SUB-ORDER **HETEROCEA.**

FAMILY AGARISTIDÆ.

GENUS XANTHOSILOPTERYX, Wallengren.

X. smithii, sp. nov. ♂. In the form of the markings of the primaries, this species recalls *X. superba*, Butl., though differing in the shape of the antebasal spots, which form a macular band from the costal limits of the cell to vein 1. The color is wholly different, recalling more nearly the coloration of *X. incongruens*, Butl. The light spots on the primaries are pale stramineous. The secondaries are ochreous orange, the black marginal band being of the same form as in *X. superba*. On the under side, the secondaries near the inner margin are slightly laved with reddish over the orange. The abdomen is yellow, somewhat narrowly banded with black on its dorsal aspect, with three rows of white spots on the ventral aspect, one on each side, and one on the ventral line. The abdomen is furnished with an orange tuft at the anal extremity. The legs are

black banded with orange on the tibiae. The tarsi are annulated with white. Expanse, 68 mm. Type unique. Amara, May 16, 1895.

This is a well-marked species, combining some of the characteristics of two of the groups of this interesting genus.

X. catarhodia, sp. nov. ♂. This species recalls in its general aspect *X. aisha*, Kirby, a good figure of which is given in the Proc. Ent. Soc. London, vol. xxxix. Pl. XV. fig. 3, but from which it differs noticeably in having fewer small light spots at the base of the primaries, in having the black border of the secondaries much narrower at the anal angle, and in further having the abdomen black, very narrowly ringed with yellow, the yellow lines being much narrower than in *X. aisha*. Furthermore, the ground color of the secondaries is not crimson as in Kirby's species, but rather pale rosy pink. Expanse 48 mm. Type unique. Dabulli, Sept. 16, 1894.

FAMILY ZYGÆNIDÆ.

GENUS SYNTOMIS, Ochsenheimer.

S. cerbera, Linn.

Sphinx cerbera, Linn., Mus. Ulr., p. 363 (1764).

River Darde, Oct. 9, 1894.

S. simplex, Walk.

Syntomis simplex, Walk., Cat. Lep. Het. B. M., vol. i. p. 129 (1854).

Oct. 25, 1894.

FAMILY CHALCOSIIDÆ.

GENUS ANOMOCETES, Feld.

A. nuda, sp. nov. ♂. This species may be distinguished from all others in the genus by the great translucency of the wings, which are diaphanous, except on the margins, where they are very lightly laved with ochreous. Expanse, 30 mm. Type unique. River Darde, Dec. 4, 1895.

FAMILY ARCTIIDÆ.

GENUS CHARIDEA, Dalman.

C? homochroa, sp. nov. ♂. Black throughout, glossed with metallic bluish, except on the outer margins, which are more or

less inclined to be diaphanous, and near the anal angle of the secondaries, which are marked with a clear, oval, diaphanous spot. Expanse, 30 mm. Type unique. River Darde, Dec. 4, 1895.

I refer this insect with much doubt to the genus in which I have provisionally located it.

GENUS SÆNURA, Wallengren.

S. lineata, Walk.

Spilosoma lineata, Walk., Cat. Lep. Het. B. M., vol. iii. p. 672 (1855).

There are two specimens in the collection. Gof, March 31, 1895.

GENUS CYCNIA, Hübn.

C. melanogastra, sp. nov. ♀. Strictly congeneric with *C. madasgascariensis*, Saalm. The primaries are pale slate-color, with the costal and internal margins broadly and the neurations narrowly pale ochreous. The secondaries are uniformly pale ochreous. The head and thorax are pale slate-color, with the edges of the tegulae and the posterior margin of the thorax margined with pale yellow. The back of the abdomen is black, margined on the side and at the anal extremity more broadly with bright orange. The under side of the thorax and abdomen is pale whitish gray, with the upper edges of the segments margined with darker gray. Expanse, 50 mm. Gof, March 31, 1895.

There are several more or less damaged specimens of this species in the collection.

GENUS CALLIMORPHA, Latreille.

C. tigris, Butl. (?)

Hypercompa tigris, Butl., Ann. & Mag. N. Hist., (5), vol. xii. p. 106 (1883).

There are two specimens, which agree more nearly with the description given by Dr. Butler than with that of any other species known to me. It is worthy of note that the markings in the two specimens are not entirely alike, and indeed there is considerable variation in the size of the spots in the species of the genus, and they show a tendency to coalesce more or less. Sheikh Mohammed, Nov. 4, 1894.

GENUS DIAPHONE, Hübn.

D. mossambicensis, Hopffer.

Diaphone sylviana, var. *Mossambicensis*, Hopff., Peters' Reise n. Mossam. Zoöl., v., p. 431, Pl. XXVIII., figs. 6, 7 (1862).

There is one badly damaged specimen of this species. March 19, 1895. San Kural.

FAMILY CYMBIDÆ.

GENUS EARIAS, Hübn.

E. chromataria, Walk.

Earias chromataria, Walk., Cat. Lep. Het. B. M., vol. xxvii. p. 204 (1863).

I cannot distinguish the specimens collected by Dr. Smith from East Indian examples.

FAMILY LITHOSIIDÆ.

GENUS UTETHEISA, Hübn.

U. pulchella, Linn.

Tinea pulchella, Linn., Syst. Nat., i., p. 534 (1758).

Numerous examples. Sheikh Husein, Sept. 24-25, 1894.

GENUS SETINA, Schrank.

S. (?) imminuta, Saalmüller.

Setina (?) imminuta, Saalm., Lep. Madgr., i., p. 167, Pl. VI., fig. 78 (1884).

One example, Sheikh Husein, Sept. 9, 1894.

FAMILY NYCTEMERIDÆ.

GENUS SECUSIO, Walker.

S. hymenæa, Gerst.

Nyctemera hymenæa, Gerstäcker, Van der Decken's Reise, iii., (2), p. 377, Pl. XVI., fig. 1 (1873).

Two good specimens, Daror, Sept. 15, 1894.

FAMILY LIPARIDÆ.

GENUS CREAGRA, Wallengren.

C. adspersa, Herr.-Schäff.*Liparis adspersa*, Herr.-Schäff., Aussereurop. Schmett., i., fig. 109 (1854).

Several examples, River Darde, Dec. 4, 1895.

FAMILY SPHINGIDÆ.

GENUS THEKETRA, Hübn.

T. eson, Cramer.*Sphinx eson*, Cram., Pap. Exot., Pl. CCXXVI, fig. C (1779).

One specimen, Kurava Wells.

T. celeris, Linn.*Sphinx celeris*, Linn., Syst. Nat., i., p. 491 (1758).

One example, Sheikh Husein, Nov. 11, 1894.

GENUS ACHERONTIA, Ochsenheimer.

A. atropos, Linn.*Sphinx atropos*, Linn., Syst. Nat., i., p. 490 (1758).

One specimen.

FAMILY SATURNIIDÆ.

GENUS ANTHERÆA, Hübn.

A. zaddachi, Dewitz.*Saturnia Zaddachi*, Dew., Mitth. Münch. Ent. Ver., iii., p. 34, Pl. II., fig. 6 (1879).

One badly injured specimen.

GENUS GYNANISA, Walker.

G. maia, Klug.*Saturnia Maia*, Klug, Neue Schmett., Pl. V., fig. 1 (1836).

One fragmentary specimen.

GENUS HENUCHA, Geyer.

H. hansalii, Felder.*Ludia Hansalii*, Feld., Reise d. Novara, Lep. iv., Pl. LXXXIX., fig. 1 (1874).

A single good specimen. Gumbisa, March 21, 1895.

GENUS SATURNIA, Schrank.

S. (?) smithii, sp. nov. ♂. The upper side of the body and wings are brown, tinged with ochraceous on the costa of the primaries and more or less suffused with pinkish at the base of the wings. There is a profuse irroration of brown scales on the costal tracts of both wings. The wings are both marked with a faint submarginal brown line, most distinct on the costa of the primaries. There is a small dark brown spot in the middle, and a long spot of the same color at the end of the cell of the primaries. On the under side the wings are colored as on the upper side but paler, with a yellowish tinge on the outer margins of both wings, and with the bases of both wings deeply suffused with pink. Type unique. Expanse, 46 mm.

This insect is strictly congeneric, according to my view, with the moth described and figured by Dewitz as *Saturnia* (?) *Kunzii*, (Verh. Leop.-Carol. Akad., xlii., p. 70, Pl. III., fig. 14). The reference of these two insects to the genus *Saturnia* is doubtful, but I do not take the time to erect a new genus for their reception, though that would undoubtedly be the proper course.

FAMILY LASIOCAMPIDÆ.

GENUS CHILENA, Walker.

C. donaldsoni, sp. nov. ♂. The primaries are pale fawn on the upper side, with the costa laved with ochraceous. A narrow whitish curved band runs obliquely inwardly from the apex to near the middle of the inner margin. At the end of the cell there is a large conspicuous curved silvery white mark. The secondaries are creamy white, somewhat broadly tinted with light fawn on the costal margin on the upper side. The thorax is dark fawn; the abdomen paler reddish fawn. The antennæ are wax yellow. The under side of the wings and the body are obscure white tinged with pale fawn. Expanse, 28 mm.

There are two specimens of this species, one of them in good preservation, the other badly rubbed. Gof, March 31, 1895.

NOCTUES.

FAMILY LEUCANIIDÆ.

GENUS PARAUCHMIS, new genus.

Allied to *Auchmis*, Hübn., from which it may be distinguished by the less pointed apex of the primaries, and the fact that vein 5 in the secondaries is not obsolescent as in that genus, but strongly developed. The fringes of the primaries are crenulate as in *Auchmis*. The style of the coloration of the typical species is distinctly leucaniid. Type, *P. Smithii*, Holland.

P. Smithii, sp. nov. ♂. The upper side of the thorax is pale straw color; the upper side of the abdomen is ochraceous. The under side of the thorax, the under side of the abdomen, and the legs are cinereous. The primaries are straw color, with a subapical and median horizontal brown shade. The median nerve and veins 2, 3, and 4 are black bordered on the edge toward the costa with fine silvery white lines. The fringes are dark brown. The secondaries are white tinged with pale brown near the outer angle. On the under side both wings are white, with the fringes of the primaries brown as upon the upper side. Expanse 35 mm. Dom-balok, April 12, 1895.

FAMILY HELIOTHIDÆ.

GENUS HELIOTHIS, Ochsenheimer.

H. armigera, Hübn.

Noctua armigera Hübn., Noct., ii., p. 180, Pl. LXXIX, fig. 370 (1804).

One specimen, River Darde, Sept. 15.

H. separata, Walker.

Heliothis separata, Walk., Cat. Lep. Het. B. M., vol. xi. p. 691 (1857).

The specimens before me have been compared with Walker's type, and agree with it. The type came from the Navigator Islands, according to Walker, but the species is probably widely distributed, and may be identical with some other form, known more commonly under another name. The specimens have somewhat the appearance of small and dwarfed specimens of *H. armigera*, but the primaries are redder than is usual in the latter species,

the markings less distinct, and the border of the secondaries is reddish brown, not blackish as in *armigera*. The "cupreous tint" to which Walker alludes in his description is apparent in the specimens before me. Hargesa, July 18, 1894.

FAMILY ACONTIIDÆ.

GENUS METACHROSTIS, Hübn.

M. africana, Feld.

Erastria Africana, Feld., Reise d. Novara, Pl. CVIII. fig. 6 (1872).

One specimen, Sheikh Husein, Sept. 28, 1894.

M. acclivis, Feld. (?)

Erastria acclivis, Feld., Reise d. Novara, Pl. CVIII. fig. 24 (1872).

The specimen before me represents a species closely allied to that delineated by Felder, but somewhat different. It may be a new species, but I refrain for the present from characterizing it as such. Sheikh Husein, Sept. 27, 1894.

GENUS EUBLEMMA, Hübn.

E. glauca, sp. nov. ♀. Thorax glaucous; upper side of abdomen pale gray; under side of thorax and abdomen pale gray. Primaries on the upper side glaucous, widely bordered with brown, with a few brown marks on the costa and obscure parallel transverse brown lines below the cell beyond the base, and a brown spot at the end of the cell. The secondaries on the upper side are white, margined toward the anal angle with brown. The under side of the secondaries is white, laved with pale brown at the apices. Expanse 27 mm. Sheikh Husein, Sept. 27, 1894.

FAMILY NOCTUIDÆ.

GENUS AGROTIS, Ochsenheimer.

A. sp? near **A. spinifera**, Hübn.

Berbera, Jan. 7; Sheikh Husein, Oct. 27.

A. sp?

The Haud, July 23, 1894.

Neither of the species of *Agrotis* before me agree entirely with the descriptions of any species known to me, but without more time

than I am able to bestow upon the subject, it is impossible for me to decide whether they are new to science or not.

FAMILY APAMIIDÆ.

GENUS CARADRINA, Ochsenheimer.

C. (?) *melittina*, sp. nov.

The upper side of the thorax is dark brown, of the abdomen cinereous. The upper side of the primaries is brown with a purplish sheen, the end of the cell is marked by a dark spot. The wing is crossed by a curved antebasal and a strongly angulated antemedial light line, the former bordered both inwardly and outwardly by dark brown, the latter thus bordered inwardly. There is also a darker submarginal shade bordered externally by a paler tract extending along the outer border. This submarginal dark band is widest at the costa. The secondaries are purplish brown shading into blackish at the outer angle. On the under side both wings are ornamented by a pale waxen yellow submarginal band most distinct upon the primaries, between which and the outer margin they are deep blackish, more particularly near the outer angles of the wings. Expanse 30 mm. Sheikh Husein, Oct. 2, 1894.

FAMILY POLYDESMIDÆ.

GENUS PANDESMA, Guen.

P. *quenevadi*, Guen., Noct., ii., p. 438 (1852).

Several specimens. Berbera, Aug. 3, 1894.

GENUS POLYDESMIA, Boisd.

P. *smithii*, sp. nov. ♂. Wood-brown, darkest toward the costa of the primaries and on the interior margin of the secondaries. The costal margin of the primaries is narrowly edged with ochraceous. Both wings are crossed by fine irregularly angulated lines after the characteristic manner of the genus. These lines are widest and darkest on the costa of the primaries. The species is of relatively small size, and may be better diagnosed from the figure on the plate than by means of an elaborate verbal description. Expanse 24 mm. River Darde, Sept. 8, 1894.

FAMILY OPHIDERIDÆ.

GENUS OPHIDERES, Boisd.

O. chalcogramma, Walker.

Ophideres chalcogramma, Walk., Cat. Lep. Het. B. M., vol. xxxiii.
p. 937 (1865).

FAMILY OMMATOPHORIDÆ.

GENUS CYLIGRAMMA, Boisd.

C. latona, Cramer.

Phalæna (Noctua) Latona, Cram., Pap. Exot., I., 20, Pl. XIII. fig. B (1775).
Numerous examples. Various localities. June, July, August, 1895.

FAMILY OPHIUSIDÆ.

GENUS CEROCALA, Boisd.

C. illustrata, sp. nov. ♀. Palpi white below, wood-brown above. The thorax and abdomen are whitish, shaded with wood-brown on the collar and patagia. The primaries on the upper side are wood-brown with a pale irregular mark covering the cell and extending below it and beyond it, interrupted by a dark spot at the end of the cell. An irregularly curved pale submarginal line extends from just before the apex to the inner margin. The fringes are concolorous, tipped with white at the apex. The secondaries are whitish, with the outer margin broadly shaded with black. The fringes are white, interrupted with black opposite the end of the cell. On the under side, the primaries and secondaries are white, with broad and dark blackish outer margins. The black spot at the end of the cell of the primaries reappears on the under side and is continued downward to the inner margin as a somewhat broad blackish band. Expanse 37 mm.

The type, which is unique, is a slightly damaged specimen. Hargesa, July 18, 1894.

GENUS OPHIUSA, Ochsenheimer.

O. melicerta, Drury.

Noctua melicerta, Drury, Ill. Exot. Ins., vol. i. Pl. XXIII. fig. 1 (1773).

Two specimens. Hargesa, July 18, 1894.

GENUS SPHINGOMORPHA, Guenée.

S. chlorea, Cram., Pap. Exot., ii., Pl. CIV., fig. C (1777).
Two examples. Berbera, July 6, 1894.

GENUS GRAMMOPDES, Guenée.

G. stolida, Fabr.

Noctua stolida, Fabr., Sp. Ins. ii. p. 218, no. 54 (1781).

One torn specimen. Hargesa, July 18, 1894.

G. netta, sp. nov. ♀. The primaries are pale stramineous. The secondaries are white. The primaries are marked by a dark brown basal line and a longer and broader median line of the same color. These lines extend from just below the cell to the inner margin and widen rapidly toward the inner margin. They are succeeded toward the outer margin by a geminate submarginal line, the outer member of which is reddish, as likewise the upper, or costal portion of the inner member. The lower portion of the inner member is dark brown like the two lines nearer the base. The under side of both wings is white, with the dark lines of the upper side reappearing more or less faintly below. Expanse 26 mm. Hargesa, July 18, 1894.

DELTOIDES.

FAMILY HYPENIDÆ.

GENUS HYPENA, Schrank.

H. abyssinialis, Guenée, Delt. & Pyral., p. 39.
Sheikh Husein, Sept. 1894.

H. sp?
Sheikh Husein, Sept. 1894.

GEOMETRITES.

FAMILY MACARIIDÆ.

GENUS GONODELA, Boisd.

G. amandata, Walker.

Macaria amandata, Walk., Cat. Lep. Het. B. M., vol. xxiii. p. 922 (1861).
Sheikh Husein, Sept. 27.

FAMILY FIDONIDÆ.

GENUS CONCHYLIA, Guenée.

C. smithii, sp. nov. Primaries silvery white, crossed by brown horizontal lines, one on the costa bifid at its outer extremity, the middle one running below the cell and curving upward to the apex with its outer margins continued along the lines of the nervures, and giving it a cleft appearance, the lower one along the inner margin interrupted with a linear patch of the prevalent bright color of the wings near the base. Secondaries white. Expanse 30 mm.

The antennæ are wanting in the specimen before me. I refer the insect to the genus in which I have placed it with some doubt. It appears to be congeneric with *C. frosinaria*, Stoll, from the Cape. If this is the case the reference of the genus to the Fidoniadæ, made by Walker, does not appear to me to be natural. In fact I doubt entirely whether the insect should be referred to the Geometridæ, but leave it here provisionally. It appears to be nearer the Crambidæ. Aimola, March 15, 1895.

CRAMBITES.

FAMILY PHYCITIDÆ.

GENUS EUZOPHORA, Ragonot.

E. sp?

Sheikh Husein, Sept. 27.

TORTRICES.

FAMILY TORTRICIDÆ.

GENUS CACŒCIA, Hübn.

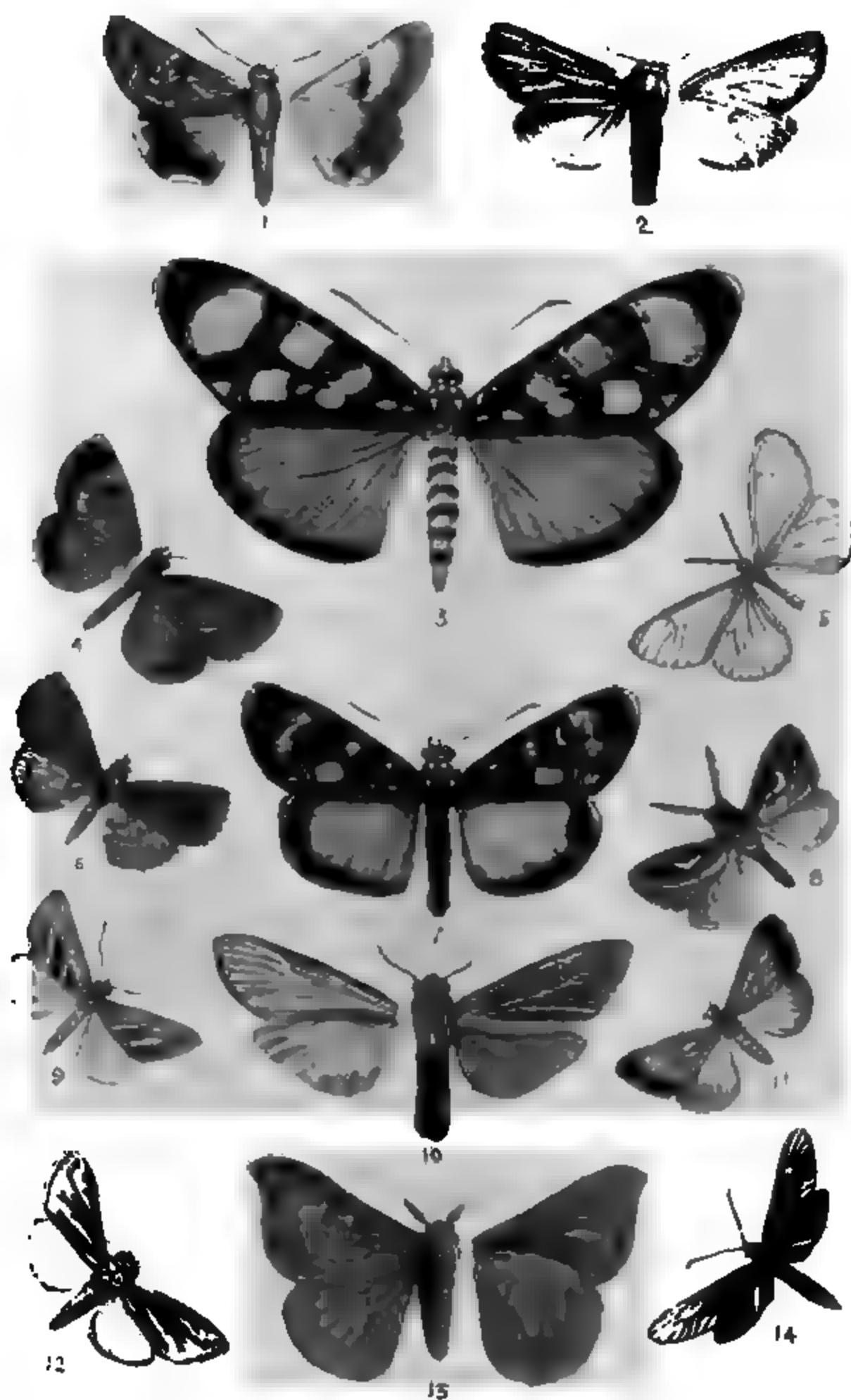
C. occidentalis, Walsingham.

C. occidentalis, Walsm., Proc. Ent. Soc. Lond., vol. xxxix. p. 64, Pl. III., fig. 1 (1891).

In addition to the species herein enumerated, there are a number of specimens of small deltoids, pyrals, and tortricids, which are too much rubbed and broken to permit of positive identification.

EXPLANATION OF PLATE.

Fig. 1. *Cerocala illustrata*, sp. nov.
" 2. *Parauchmis Smithii*, sp. nov.
" 3. *Xanthospilopteryx Smithii*, sp. nov.
" 4. *Caradrina melliflua*, sp. nov.
" 5. *Anomoctes nuda*, sp. nov.
" 6. *Polydesma Smithii*, sp. nov.
" 7. *Xanthospilopteryx catarhodia*, sp. nov.
" 8. *Chilena Donaldsoni*, sp. nov.
" 9. *Grammodes netta*, sp. nov.
" 10. *Cycnia melanogastra*, sp. nov.
" 11. *Eublemma glaucata*, sp. nov.
" 12. *Conchylia Smithii*, sp. nov.
" 13. *Saturnia (?) Smithii*, sp. nov.
" 14. *Charidea (?) homochroa*, sp. nov.



E.

Note on Dr. Donaldson Smith's Geological Collection.

By J. W. GREGORY, D. Sc., F. G. S.

DR. DONALDSON SMITH'S energies having been mainly devoted to geographical and zoölogical work, his geological collection is small. It consists of eight rock specimens, one fossil brachiopod, a broken lamellibranch, and some fragments of ammonites. The ammonites are named in a list by my colleague, Mr. G. C. Crick. The other specimens are as follows :—

1. Coarse, weathered trachytoid phonolite. Locality, Marsabit. September, 1895.
2. Pumiceous trachytoid phonolite. From Marsabit.
3. Compact trachytoid phonolite, with pilotaxitic structure. Marsabit, September, 1895.
4. Weathered brown tuff associated with last. At Marsabit. September, 1895.
5. Trachytic (or phonolitic) brown weathered tuff from one hundred feet above level of Marshy Lake in Omo valley.
6. Broken lamellibranch (*Aetheria*, sp. ?) from alluvial deposits in Omo valley.
- 7, 8, & 9. Archæan gneisses, crowded with epidote. Shores of Lake Rudolf.
10. *Rhynchonella subtetrahedra*, DAV.

Though this collection is small, it is sufficient, taken in connection with what is known of the adjoining areas, to throw considerable light on the geological structure of the country traversed by Dr. Donaldson Smith, and on the extent of the range of the two principal East African rock series.

As I have recently shown elsewhere,¹ the geological formations of East Africa may be divided into four main divisions; 1. A series of gneisses and schists referable to the Archæan series; 2. Some

¹ J. W. Gregory, *The Great Rift Valley*. London, 1896. pp. 213-236.

small exposures of later Palæozoic and Mesozoic deposits; 3. A series of volcanic rocks of various dates, but all post-Jurassic; and 4. Sundry alluvial deposits of Cainozoic age.

Dr. Donaldson Smith's collection includes representatives of the 1st, 3d, and 4th of these divisions.

The Archæan rocks are the oldest, and form a plateau, upon the eroded surface and flanks of which the other rocks were deposited. The Archæan series was known to occur in Somaliland south of Berbera and Zeila, and in Abyssinia; and also to form a band across British and German East Africa, and southward thence as far as the Transvaal. The most northern points at which they have previously been found is in the Loroghi Mountains, where they were collected by Lt. von Höhnel; so that the specimens found by Dr. Donaldson Smith help to connect the Somali gneisses with the typical East African series. The specimens collected are much altered, and stained green by secondary epidote; but similar rocks have been found by Mrs. Lort Phillips in Somaliland,¹ so that there need be no doubt as to the correctness of their identification as members of the Archæan.

The Permocarboniferous rocks of the Sabaki valley are not represented in the collection, but there are many fragments of Jurassic ammonites from Somaliland. Baron von der Decken during his fatal ascent of the Juba in 1865 noticed specimens of limestones on the right bank of the river. It seems probable that these were part of a band which once extended from the Jurassics of Mombasa and German East Africa to those of Abyssinia. Dr. Donaldson Smith has collected a single brachiopod which gives a more satisfactory basis for this hypothesis. It is identified by Mr. F. A. Bather as *Rhynchonella subtetrahedra*, Dav., a species previously found in Somaliland where it is associated with others recorded from Abyssinia by Aubry and Douvillé.²

This specimen, therefore, shows that while the main Archæan plateau has never been below the sea, it was greatly depressed in Jurassic times, during which the sea rose upon its flanks and probably extended as a strait between the plateau of Somaliland and that to the southeast of Lake Rudolf.

The next series represented is that of the volcanic rocks which

¹ J. W. Gregory, A Note on the Geology of Somaliland. *Geol. Mag.* Dec. vol. iv. 1896. p. 290.

² Aury & Douvillé. *Esquisse géologique du royaume de Schoa* *Bull. Soc. géol. France*, sér. 3, t. xiv. 1887, p. 236.

cover so large a proportion of British East Africa. In the area where this series is most developed, the lavas are of many different types, only one of which is represented in Dr. Donaldson Smith's collection.

This is the trachytoid phonolite, which is one of the most remarkable rocks in the series. Dr. Smith collected fragments in Marsabit and the Omo valley, and thus extends the range of this rock a considerable distance to the north, and helps to link the lavas of Laikipia with those of Abyssinia.

The only fossil from the Cainozoic alluvial deposits on the floor of the Omo valley is too broken to be identified. Mr. E. A. Smith has kindly examined it with much care, and reports that it is probably a specimen of *Aetheria*; but even its generic position cannot be determined with certainty. This is unfortunate, as mollusca from these alluvial deposits of the Rift Valley are among the greatest desiderata in East African geology. If future travellers would do their best to collect such specimens, geologists would be grateful to them.

Dr. Donaldson Smith's collection is therefore of interest, as it gives us a fair idea as to the distance to which the rocks of British East Africa extend to the north.

F.

On the Fossil Cephalopoda from Somaliland collected by Dr. Donaldson Smith. By G. C. CRICK, F. G. S.

THE fossil Cephalopoda brought by Dr. Donaldson Smith are so fragmentary and so very much worn that their exact determination is scarcely possible. They are all Ammonites belonging to the division *Perisphinctes*, a rather large section, many of whose members are very difficult to determine even when well preserved. Most of the examples are merely portions of whorls; in only one instance is the whorl nearly complete. Still several species can be distinguished. The fossils are preserved in a brownish-yellow matrix, and are all labelled "Terfa."

1. Perisphinctes cf. Adelus, GEMMELLARO.¹

This species is represented by at least two examples, the better of the two being the best specimen in Dr. Donaldson Smith's collection. It consists of nearly an entire whorl, is very much worn, and has the following dimensions: Diameter, 131 mm.; height of outer whorl, 39 mm.; ditto above preceding whorl, about 29 mm.; thickness, 38 mm.; width of umbilicus, 62 mm. The last half whorl has nineteen or twenty principal ribs; these on leaving the umbilicus are directed slightly backwards, they are a little curved, and each divides at about the outer third of the lateral area of the whorl usually into two but sometimes into three ribs, which pass straight over the periphery without interruption. The suture-line cannot be made out. It is probable that the body-chamber occupied at least two-thirds of the portion of the whorl that is preserved.

The other example of this species consists of about half of a whorl with a diameter of 107 mm., and exhibits no septa.

The species represented by these examples seems to come nearest *Perisphinctes Adelus*, Gemm., from the zone of *Aspidoceras*

¹ Giorn. Sci. Nat. ed Econ. Palermo, vol. viii., Pt. i., 1872, p. 158, Pl. III., fig. 7.

acanthicum in Sicily, but its whorls are less inflated and it has a slightly smaller umbilicus.

It bears some resemblance to *Perisphinctes Beyrichi*, Futterer,¹ which according to its author was the principal form of *Perisphinctes* occurring in the collection of Cephalopoda which he examined from Mombasa. That species, however, has more inflated whorls; it was regarded by Futterer as closely related to Indian species from the Katrol group.

The Somali species has finer ornaments (which are not interrupted on the peripheral area), and is a much more involute shell than *Per. bathyplocus*, Waagen² from the middle portion of the Katrol group (= Upper Oxfordian to Kimeridgian); whilst its ornaments are coarser, the primary ribs more regularly bifid, and its involution greater than in *Per. alterneuplicatus*, Waagen,³ a species also from the Katrol Group in the Kachh Jura.

2. *Perisphinctes cf. frequens*, OPPEL, sp.⁴

This species is represented by a number of fragments, the largest and best preserved of which is part of a whorl about 170 mm. in diameter. But this whorl bears indications of a succeeding whorl, so that the specimen must have attained a large size. Rather more than one-fourth of a whorl is preserved, with a portion of the preceding whorl attached. There are about fifteen primary ribs in a quarter of a whorl, and each of these at about from one-third to one-half of the width of the lateral area from the periphery divides into three ribs which pass uninterruptedly and in a straight line over the peripheral area. The transverse section of the outer whorl (that is preserved) is oval or subquadrate, the sides being a little flattened and convergent, and the greatest width being at about one-third of the height of the whorl above the inner edge of the whorl. The preceding whorl is more oval in section and agrees better with Oppel's and Waagen's figures of *Per. frequens*. At the anterior extremity of the specimen the dimensions of the outer whorl are: height, 53 mm.; ditto above preceding whorl,

¹ Zeitschr. deutsch. geol. Gesell., vol. xlvi. (1894), p. 9, Pl. II., figs. 1, 1 a; 2, 2 a, 2 b; 3.

² Pal. Indica, ser. ix., Jurassic Fauna of Kachh, vol. i., p. 192, Pl. L., figs. 1 a, b, 1875.

³ Pal. Indica, ser. ix., Jurassic Fauna of Kachh, vol. i., p. 199, Pl. L., figs. 2 a, b, 1875.

⁴ Pal. Mittheil., vol. ii., p. 295, Pl. LXXXVII., figs. 1 a-c., 1865.

39 mm. ; greatest width, 49 mm. ; and of the preceding whorl: height, 30 mm. ; ditto above preceding whorl, 24.5 mm. ; greatest width, 28 mm. Only a small portion of the siphonal part of the suture-line can be made out.

One fragment shows distinctly that the ribs are bidichotomous, dividing first into two branches, and then the posterior one again dividing into two branches, an ornamentation which Waagen notes in his description of Oppel's *Per. frequens*.

This species comes very near *Per. frequens*, which was described from Thibet by Oppel in 1865 and has been recognized by Waagen¹ as a rare species in the Oomia Group (= Tithonian) of the Kachh Jura. It also bears some resemblance to Quenstedt's *Ammonites polyplocus breviceps*² from the White Jura γ, but it is a more inflated shell and the ribs divide nearer the periphery. Choffat figures³ a specimen near to *breviceps* Quenst., from the Montejunto beds in Portugal, and states that the form occurs also near Grenoble at the base of the *tenuilobatus*-zone (Kimeridgian).

3. *Perisphinctes* cf. *denseplicatus*, WAAGEN.⁴

A crushed fragment exhibits a sculpture closely resembling that of the adult shell of *Per. denseplicatus*, Waagen, but it is so flattened that the original form of the whorl cannot be ascertained. In its crushed condition it is 37 mm. in height. The primary ribs are about 4 mm. apart at the umbilical margin; each divides on the lateral area into three, and there is usually an intermediate rib. This fragment differs from those representing the preceding species in having finer and more numerous peripheral ribs.

Waagen states that *Per. denseplicatus* is "the most common species of Ammonite in the Oomia Group" (= Tithonian).

4. *Perisphinctes* cf. *torquatus*, J. DE C. SOWERBY.⁵

Another species is represented by two or possibly by three fragments.

¹ Pal. Indica, ser. ix., Jurassic Fauna of Kachh, vol. i., p. 200, Pl. XLIV., figs. 1, 2 a; 3, 3 a. 1875.

² Amm. Schwäb. Jura, p. 944, Pl. CIII., fig. 2, 1887-8.

³ Description de la Faune jurassique du Portugal. Céphalopodes, 1^{re} sér. Ammonites du Lusitanien de la contrée de Torres-Vedras, p. 53, Pl. XI., fig. 1., 1893.

⁴ Pal. Indica, ser. ix., Jurassic Fauna of Kachh, vol. i., p. 201, Pl. XLVI., figs. 3 a, b; Pl. LV., figs. 1 a, b: 2 (especially the latter figures).

⁵ Trans. Geol. Soc. [2], vol. v., Pl. LXI., fig. 12 and expl. of fig.

The largest example is part of a widely umbilicated specimen with coarse ribs, and attained a large size. Its length along the median line of the periphery is about 170 mm.; at the anterior end its height is 44 mm., and its width 45 mm., but one side of specimen is very much worn. The radius of curvature of its inner edge is about 58 mm. (or rather more than $2\frac{1}{4}$ inches). The primary ribs (14 in number) are forwardly inclined; each divides usually into two, but sometimes into three ribs, which pass uninterruptedly over the peripheral area. It seems to have been as coarsely ornamented as the *Per. torquatus* figured by Waagen¹ from that part of the Katrol Group which he refers to the Kimeridge Group. The ribs are coarser, and the whorl is more inflated and relatively wider than in the types of Sowerby's *Amm. biplex*² from the Kimeridge clay, although not so wide as the type of his *Amm. rotundus*³ from the same horizon.

One of the other fragments appears to be the posterior part of a body-chamber. It is only about 66 mm. long, semi-elliptical in transverse section, with the sides a little flattened. In this length there are eleven primary and twenty-two secondary ribs. The primary ribs are nearly straight, radial, and at the outer two-fifths of the lateral area divide usually into two, rarely into three branches, which pass straight and uninterruptedly over the periphery. Occasionally a primary rib passes over the whorl without bifurcating. The height of the whorl at the centre of the fragment is 28 mm., and its width is about the same.

The collection, although fragmentary, shows that the rocks from which these fossils were derived are of the Upper Jurassic age, almost all the Ammonites being comparable with Indian Jurassic species. Many of the specimens, although considerably worn, are not at all crushed, so that if specimens could be found in the rock *in situ* they would in all probability be in a good state of preservation and show that the Cephalopoda are not only for the most part comparable, but identical, with Indian Jurassic forms.

¹ Pal. Indica, ser. ix., Jurassic Fauna of Kachh, vol. i., p. 191, Pl. LIV.

² Min. Con. vol. iii., p. 168, Pl. CCXCIII., figs. 1, 2, 1821. [Brit. Mus. Coll. No. 43898.]

³ Id., vol. iii., p. 169, Pl. CCXCIII., fig. 3, 1821. [Brit. Mus. Coll. No. 43899.]

G.

Catalogue of Ethnographical Objects from Somaliland and the Galla Country, collected by Dr. A. Donaldson Smith, in Museum of Science and Art, University of Pennsylvania. By STEWART CULIN,¹ Director of the Museum.

SOMALI.

Amulet Bag. Rectangular, of leather, $1\frac{1}{2} \times 2\frac{1}{4}$ inches, with broad loop at top through which passes a leather belt. Probably contains written charm. 19010

Comb. Carved wood, with eight prongs. Handle ornamented with incised chevron patterns. Length, 14 inches. 19009

Dagger. Straight two-edged symmetrical blade, with flat wooden handle terminating in a peculiar ornament of iron. Plain leather scabbard, with leather strap. Length, 18 inches; blade, 12 inches; hilt, 6 inches. 19012

Dagger. Similar to preceding, but with horn handle ornamented with pewter band, of extremely graceful workmanship. Length, 22 inches: blade, 14 inches; hilt, 8 inches. 19013

Spear Head. Finely wrought blade, with narrow median ridge. Socket closely coiled with brass wire. Length: blade, 12 inches; socket, $8\frac{1}{2}$ inches. 19011

ARUSA GALLA.

Amulet. Three flat sealed leather bags about three inches square, and small oval packet wrapped with fibre, strung with broad loops on leather thong to form necklace. One bag is overset with yellow glass beads, and all are alternated with two white glass beads strung on thong between them. 18922

¹ The writer desires to express his acknowledgment to Dr. W. L. Abbott's admirable "Descriptive Catalogue of the Abbott Collection of Ethnological Objects from Kili-ma-njaro," in the report of the United States National Museum, 1891.

Arm Ring. Open band of pewter, with continuous chevron designs. Width, $1\frac{1}{2}$ inches; diameter, $3\frac{1}{2}$ inches. 18914 $\frac{1}{2}$

Bracelets (pair). Open brass rings, square in section, with chevron design on outer faces. Diameter, $3\frac{1}{4}$ inches. 18914

Wristlet. Band of pewter with continuous chevron design, flattened to form ellipse. Width, $3\frac{3}{4}$ inches; greatest diameter, 3 inches. 18913

Finger Ring. Brass, with large round flat boss, bearing five-pointed star. 18911

Finger Ring. Like preceding, but with eight-pointed star. 18911 *a*

Cap. Closely fitting, of open basketry. Sheikh Husein tribe. 18907

Forehead Ornament. Two tubes of brass, about one inch in diameter and four in length, formed by bending a single piece of metal attached horizontally by a thong around the forehead. The ends of the tubes are stopped with white porcelain beads, cemented with gum. They are filled with some dark substance. The outside is engraved with the continuous chevron design. 18918

Forehead Ornament. Identical with the preceding, except that the material is copper. 18917

Head Dress. Open ring of bent wood, wrapped with brass and copper wire. Worn on crown. Diameter, 7 inches. 18919

Head Ornament. Pair of brass rings connected by leather thongs which pass around the head so that the rings fall over the ears. The rings, which taper from the middle, are square in section, and ornamented with a serrated pattern. The ends are closed by a wrapping of brass wire. Worn with preceding, 18918 and 18919. Diameter about 4 inches. 18913

Scraper. Iron, with sharp edge, used to remove callous skin. Terminates in an awl. Length, 5 inches. 18921

Tweezers (3). Iron, with two blades united by spring at back. Lengths: 2, $2\frac{1}{2}$, and 3 inches. 18912-18913

Quiver and Arrows. Tube of reed, with caps of hide, and leather strap for suspension. Contains 17 arrows of reed, without feathers or foreshafts. Footing of hard wood, wound with sinew; swallow-tail nock with U-shaped notch. Heads of iron, with tang inserted in the reed, which is wrapped with sinew. Two kinds of heads occur: one long, nail-shaped, square in section, and the other barbed, both with and without twists in the tang. The shaft of one arrow is entirely of wood, with an iron head socketed to receive it. Length of quiver, 26 inches; length of arrows, 22 to 26 inches. 18991

Quiver and Arrows. Similar to preceding. Thirteen arrows, several with bone foreshafts, two of these being feathered with four feathers inserted in a band of bark which encircles the shaftment. The quiver also contains a fire stick. 18992

Quiver and Arrows. Similar to preceding. Two arrows have bone foreshafts. Quiver contains one shorter arrow, feathered with four feathers cemented with gum; also a reed with an iron point, the end of which is divided into two flat prongs, possibly for use in extracting arrows from quiver. 18993

Quiver and Arrows. Similar to 18991. Twenty-two arrows, two with bone foreshafts. 18990

Shield. Made of hide. Round, with convex centre and small projecting boss. Rim formed by turning up edge. Has hide handle, and is ornamented with impressed patterns consisting of concentric rings intersecting numerous radiating lines. Has thong for suspension. Diameter, 23 inches. 18900

Shield. Similar to preceding, but without loop, and with painted instead of impressed ornament, the rings being black and radiating lines red. Diameter, 20 $\frac{1}{2}$ inches. 18899

Spear. Narrow blade with median ridge. Coil of flat iron around shaft below socket. Spud pointed. Length, 78 inches; blade, 5 $\frac{1}{2}$ inches; socket, 6 inches; and spud, 7 inches. 18925 a

Spear. Narrow leaf-shaped iron blade with median ridge. Shaft wrapped with spiral strip of brass below blade. Spud flattened at end; above it a band of heavy leather with projecting seams at each side. Length, 93 $\frac{1}{2}$ inches; blade, 6 $\frac{1}{4}$ inches; socket, 9 inches; and spud, 9 inches. 18925

Spear Head. Leaf-shaped, with median ridge. Length, 13 inches: blade, 9 inches; socket, 4 inches. 18923

Spear Head. Similar to preceding. Length, 19 $\frac{1}{2}$ inches; blade, 9 $\frac{1}{2}$ inches; socket, 10 inches. 18923 a

Spear Head. Blade ovate, with sharpened edge. Length, 8 $\frac{1}{2}$ inches; blade, 4 inches; socket, 4 $\frac{1}{2}$ inches. 18924

Sword. Curved, scimitar-shaped blade, double edged, with two broad deep grooves extending entire length. Hilt, wood; scabbard, leather. A typical Abyssinian sword. Sheikh Husein tribe. Length: blade, 31 inches; hilt, 4 $\frac{1}{2}$ inches. 18901

Sword. Blade curved back, with five rib-like grooves. Hilt wood, similar to preceding. Scabbard red leather, with belt with iron buckle. Length: blade, 21 inches; hilt, 4 inches. Sheikh Huscin tribe. 19002

Cow Bell. Wrought iron, the cup formed of two sections united by a narrow band at top, from which long iron clapper is hung by raw hide thong. Height, $4\frac{1}{2}$ inches. **18916**

Spoons (3). Horn. Narrow bowls, with handles carved with raised bands, one terminating in a conical knob. Lengths, $7\frac{1}{2}$, 10, and $10\frac{1}{2}$ inches. **18908, 18909**

Wooden Bottle. Ovate, with wooden stopper; lugs on each side; mouth encircled with platted grass, with which, also, crack in side has been mended. Height about 9 inches. **18905**

Wooden Bowl. With four legs. Ornamented with carved designs which suggest that the object is reproduction of leather vessel. Lines around legs and below rim copied from stitching, and square flaps carved at sides. Greatest diameter, 9 inches; height, 5 inches. **18902**

Wooden Bowl. Similar to preceding. Diameter at top, 10 inches; height, 8 inches. **18904**

Wooden Cup. Goblet-shaped, with foot. Has four pierced lugs. Height about $4\frac{1}{2}$ inches. **18901**

Wooden Vessel. Gourd-shaped, with four pierced lugs at top, two used for thongs to keep knobbed cover in place, and two for carrying strap. The latter ornamented with cut cowries. Height, 10 inches. **18905**

Wooden Vessel. Gourd-shaped. Like preceding, but has two lugs for carrying strap. Top has rim of fine basketry; bottom, which is flat, is of same material. **18906**

Pounder. Irregular ring-shaped fragment of lava. Diameter about 5 inches; thickness about $1\frac{1}{2}$ inches. **18926**

Spindle. Polished wood, with flat wooden whorl 2 inches in diameter. Length, 11 inches. **18920**

Spindle. Polished wood like preceding. Diameter of whorl, $2\frac{1}{4}$ inches. **18924**

ABYSSINIAN.

Belt. Two thicknesses of hide, covered within with leather and without with red cotton cloth, closely studded with small bosses or buttons set in four rows. Silver clasps at ends. Length, 37 inches; breadth, $2\frac{1}{4}$ inches. **19016**

Dagger. Broad curved blade, with wooden hilt wrapped with brass wire, and set at end with large brass knob in shape of inverted cone. Leather scabbard, ornamented with brass wire, and terminating in brass knob, corresponding with hilt, but hexag-

onal and ribbed at base. Length, 12 inches: blade, $7\frac{1}{2}$ inches; hilt, $4\frac{1}{2}$ inches. **19014**

Dagger. Similar to preceding. Length, 14 inches: blade, 9 inches; hilt, 5 inches. **19015**

Robe. Loosely woven soft cotton cloth of native manufacture, in broad longitudinal stripes of red and white. Worn doubled, so that two white stripes appear, with red one in middle. Length, 9 feet; width 4 feet 8 inches. **19026**

Robe. Similar to preceding, but less loosely woven. Length, 8 feet 5 inches; breadth, 5 feet 6 inches. **19027**

DAGODI.

Sling. Platted fibre, with leather finger-loop. Length, 75 inches. **18884**

Cow Bell. Carved from single piece of wood. Shaped somewhat like clam shell, with two long wooden clappers strung on cords passing through holes at top. Width about 6 inches. **19030**

GÉRE GALLA (BADI).

Spear. Broad leaf-shaped blade, with triangular point and high median ridge. Lower half painted red. Spud pointed. Length, 84 inches; blade, 10 inches; socket, 8 inches; spud, $5\frac{1}{2}$ inches. **18894**

GÉRE GALLA (LIBIN).

Spear. Broad leaf-shaped iron blade, with triangular point and high median ridge. Coil of iron wire on shaft below socket. Spud long, tapering to point. Length, 84 inches; blade, $9\frac{1}{2}$ inches; socket, $7\frac{3}{4}$ inches; spud, 11 inches. **18895**

SAKUYU.

Quiver and Arrows. Tube of hollowed wood, expanding symmetrically from the middle to either end, with bottom consisting of flat cap of shrunken hide, and cover similar, but large and cup-shaped, and attached to quiver by thong. Contains eleven arrows, simple, with polished hard-wood shafts tapering to nock; feathered with four feathers set at a uniform slight angle to shaft, to which they are glued. Nock bulbous, with U-shaped notch. Triangular

iron points, with long slender tangs inserted in hole drilled in shaft, which is wrapped with sinew. The points and ends of shafts are thickly smeared with a black resinous substance said to be arrow poison. Two of the arrows, consisting of shafts, without feathers or points, are unfinished. The middle part of the quiver is wrapped with leather, with a broad leather loop attached for carrying. An awl with a sharp iron point and a round wooden handle that has been used as a cutting-block is stuck in the latter. There is also suspended from the quiver a long leather sheath in which are two fire sticks, one unused, with two similar sticks tied outside. A square leather pouch with a triangular flap is also hung from the quiver. This contains the following objects :

Two small boxes made of shaved tip of horn, one with shrunken hide cover containing arrow poison.

A long narrow bag of coarse unbleached cotton cloth, intended to cover fire sticks and scabbard.

Skein of soft white cotton thread.

Bowstring of sinew.

Sharpening stone; a thin slab of sandstone, showing much use.

Small spud of spear, recently sharpened to edge.

Hook of twisted brass wire used to suspend objects in travelling.

Strip leather, and fragment trader's striped cotton cloth.

Length: quiver, about 25 inches; arrows, about 23 inches; fire sticks, 13 to 19 inches; awl, 6½ inches. **19023**

GABBRA.

Bow. Of hard wood, ovoid in section, and with single curve. Has nocks cut for string. Latter of two-ply twisted sinew. Length, 57½ inches. **18899**

BORAN.

Arm Rings (8). Flat sections of ivory tusks, stained and polished by use. Some perfect and others broken. Several of the latter mended with leather thongs, and one with flat copper wire. External diameter about 4½ inches; internal, 3 to 3½ inches; thickness $\frac{3}{16}$ to $\frac{3}{8}$ inch. **18938**

Arm Rings (2). Made of toe-nail of elephant, identical with those worn by Arbore, similar in form and size to preceding, between which they are worn. **18939**

Finger Rings (2). Brass, with cup-shaped bosses, $1\frac{1}{4}$ inches in diameter, and serrated edges and a central knob. **18933**

Necklace. Twofold, of small ostrich shell disks strung on fibre cord. Length about 25 inches. **18934**

Whip. Made from hide of hippopotamus. Oblong strips of zebra and other hides are attached by leather loop to stock, representing animals killed by owner. Length, 38 inches. **18928**

Necklace. European glass beads strung on leather thong. Length, 22 inches. **18932**

Necklace. Glass beads strung on giraffe hair. Has pair of small iron thorn forceps and minute leather amulet bag attached. Length about 27 inches. **18932 a**

Necklace. Leather thong, with two pendants of giraffe hair strung with glass beads, a wooden bead, and coil of copper wire. Length, $17\frac{1}{2}$ inches. **18942**

Girdle. Two strands of ninefold platted leather, with ends coiled with strips of brass, copper, and pewter. Length, 54 inches. **18935**

Girdle. Three strands of threefold twisted leather, with four ends wrapped with brass and copper wire and two with thin sheet-iron. Length, 38 inches. **18936**

Girdle. Two strands of threefold twisted leather, with ends wrapped with coils of copper strips. Length, 49 inches. **18937**

Plume Case. Reed containing white ostrich feather. Length, 18 inches. **18945**

Plume Case. Similar to preceding, but containing two plumes. **18944**

Knife. Broad blade with single edge, socketed with sheet-iron, with iron rivets. Wooden haft wrapped with sheet copper. Leather scabbard, with small attached sheath containing iron thorn extractor and awl. Length: blade, 8 inches; hilt, $5\frac{1}{2}$ inches. **18931**

Knife. Similar to preceding. Length: blade, 7 inches; haft, 4 inches. **18929**

Shield. Hide. Round, with convex centre and raised boss. Rim formed by turning up edge. Has heavy hide handle, and is ornamented with impressed linear patterns. Diameter, $16\frac{3}{4}$ inches. **18930**

Shield. Similar to preceding. Has loop of platted thong inserted at edge for carrying. Diameter, 17 inches. **18930 a**

Spear. Broad leaf-shaped iron blade, with high median ridge. Spud flattened at end, but blunt. Rudely made. Length, 91 inches; blade, $9\frac{1}{4}$ inches; socket, 9 inches; and spud, $14\frac{3}{4}$ inches. **18947**

Spear. Broad leaf-shaped blade, with high median ridge. Spud terminates in flattened oval. Length, 92 $\frac{1}{4}$ inches; blade, 12 $\frac{1}{2}$ inches; socket, 9 $\frac{1}{2}$ inches; and spud, 10 inches. **18948**

Spear. Leaf-shaped iron blade, sharpened at edge, with high median ridge. Spud flattened at end. Length, 75 inches; blade, 7 $\frac{1}{2}$ inches; socket, 7 $\frac{1}{4}$ inches; and spud, 5 $\frac{1}{2}$ inches. **18946**

Carrying Hooks (2). Pot-hook shaped, of sheet-iron, used to hang objects from shields when on the march. Length, 3 and 3 $\frac{3}{4}$ inches. **18905, 18943**

Pouch. Fragment antelope skin, containing acacia gum, with ends wrapped with leather thong. **18941**

AMARA.

Arm Ring. Massive ivory. Diameter, 4 $\frac{1}{2}$ inches; thickness, $\frac{1}{8}$ inches. **18887**

Sword. Straight broad two-edged blade, with deep broad central groove on both sides. Hilt wood and leather. Scabbard leather, with inner strips of wood. Has platted thong by which it may be slung from arm. Length: blade, 19 inches; hilt, 5 $\frac{1}{2}$ inches. **18894**

KONSO.

Girdle. Strip loosely woven cloth, with pattern formed by transverse equidistant threads of red on one part and blue on the other. Length about 10 feet 4 inches; width about 18 inches. **19024**

Robe. Strip of loosely-woven coarse cotton cloth. Length, 20 $\frac{1}{2}$ feet; width, 21 inches. **19025**

ARBORE.

Comb. Polished wood, with four prongs. Handle scratched with checkered designs, with loop for suspension. Length, 10 inches. **18970**

Ankle Rattles. Semi-lunar iron bell strung on leather thong by means of double hole at top. Length, 4 $\frac{1}{2}$ inches. **18967**

Anklets (3). Chains of irregular loop-shaped iron links. One has small semi-lunar iron bell and iron rattles attached. Length, 9 $\frac{1}{2}$ to 20 inches. **18959, 18960**

Arm Rings (3). Flat sections of ivory, similar to those worn by the Borans.	18962
Arm Ring. Of toe-nail of elephant. Same size and form as preceding, between which it is worn.	18963
Arm Ring or Wristlet. Massive ivory, with inner edge rounded by use. Diameter, $4\frac{1}{2}$ inches; thickness about 1 inch.	18961
Armlet. Heavy coiled brass wire; 16 coils.	18949
Bracelet. Heavy brass rod, ellipsoidal in section, pressed to form open ring. Incised at junction with lines suggesting binding cord and perforations. Diameter, 4 inches.	18964
Bracelet. Brass. Flat, resembling horseshoe. Edge ribbed, and one face incised with designs of parallel lines. Diameter, $4\frac{1}{2}$ inches.	18966
Bracelets (pair). Hammered brass convex shells about an inch in width, with heavy interior rib, pressed to form open ring. Decorated with vertical and transverse lines and diamond patterns. Diameter, $3\frac{1}{2}$ inches.	18965
Ear Ring. Flat coil of iron wire, terminating in sharpened hook. Length, $1\frac{1}{4}$ inches.	19017
Finger Ring. Coiled flat brass wire; six coils, with outer face scratched with parallel diagonal lines.	18969
Finger Ring. Ivory. Broad and rudely made, with bevelled edge. Diameter, $1\frac{1}{8}$ inches.	18968
Necklaces (4). Blue and amber glass beads.	18949
Necklaces (3). Red and blue glass beads.	18951
Necklace. Small red and white glass beads strung on single giraffe hair.	18953
Necklace. Green glass beads strung on giraffe hair.	18950
Necklace. Twofold. Green and yellow glass beads strung on giraffe hair.	18952
Necklace. Giraffe hair, divided in several strands, each strung with beads, in greater part of carnelian of native manufacture, with two of cannel coal and one of blue glass. Length, 18 inches.	18974
Necklaces (2). Giraffe hairs (between 30 and 40) with ends intertwined to form ring, the place of juncture covered with tube of polished brass, ornamented with punch marks. Length, 18 inches.	18958
Necklace. Small shell beads alternated with red and blue glass beads.	18954
Necklace. Variegated grass, platted over strands of fibre.	18957

Necklace. Twofold. Made of reed beads about an inch in length. 18950

Necklaces (2). Twofold. Made of beads of porcupine quills. 18955

Belt. Flat band of leather, evenly set with single row of cowrie shells from which tops have been cut. They are attached, mouths out, with a leather cord. Worn by women. Length about 44 inches. 18986

Belt. Broad leather band ($2\frac{1}{4}$ inches), with face set with cowries in two rows, applied in same manner as preceding. Length about 30 inches. 18987

Apron. Antelope skin, with hair, worn hair side out. The upper part turned over, and lashed with leather thongs to a broad belt set with cowries. Two bands of hide, each cut in four pendant thongs, are sewed to upper edge of apron, and hang down in front. Their ends are strung with rude iron rings and short chains. Worn by women. 18988

Robe. Leopard skin, with fur, native tanning, with leather thong at neck. Worn hair out, on back, by warriors in fighting. 19018

Robe. Leopard skin, similar to 19018, but with neck-piece reinforced with leather band. 19019

Robe. Leopard skin, similar to 19018, but with neck cut to form loop for insertion of wearer's head. 19020

Robe. Leopard skin, similar to 19018. 19021

Robe. Cheetah skin, similar to preceding. 19022

Staff of Office. Dark wood, carved with two continuous spiral lines, between which is a line of transverse nicks. The decoration apparently copied from staff wrapped with cloth or leather. Length, $45\frac{1}{2}$ inches. 18903

Tobacco Horn. Tip of ivory tusk, with leather caps at top and bottom, through which pass thongs for suspension. Contains granulated tobacco. Length, about 6 inches. 18971

Tobacco Pipe. Globular clay bowl, on wooden tube, which is attached to a gourd for water, through which the smoke passes. The latter is surrounded by a broad band of sheet brass, and has a long stem, formed of sheet brass, held in place by cords. Total length about 22 inches. 18972

Bow. Hard wood. Ovoid in section; single curve, with nocks for string. Length, 66 inches. 18998

Knob Stick. Highly polished dark wood, with globular knob. Stick pointed, with iron spud; wrapped at base of knob with many coils of flat iron wire. Length, 22 inches. 18978

Knob Stick. Similar to preceding, with ovate knob. Length, 24 inches. **18973**

Spear. Remarkable for length of blade, which is narrow, with median ridge. Coil of flattened iron wire encircles shaft below blade, and another above the spud. The latter pointed. Length, 95 inches; blade, 15 inches; socket, 8 inches; and spud, 8 inches. **18983**

Spear. Very small leaf-shaped blade, with median ridge. Shaft charred in working; end blunt; no spud. Length, 70 $\frac{1}{2}$ inches; blade, 3 inches; and socket, 7 inches. **18985**

Spear. Pear-shaped blade, sharpened at edges. Spud small. A band of brass with punched lines is wrapped around shaft above spud. Length, 70 $\frac{1}{2}$ inches; blade, 7 inches; socket, 6 inches; and spud, 5 inches. **18982**

Spear. Narrow blade with median ridge. Spud sharpened to point. Length, 78 inches; blade, 6 $\frac{1}{2}$ inches; socket, 10 inches; and spud, 8 inches. **18981**

Spear. Leaf-shaped blade with median ridge. Spud pointed. Length, 87 $\frac{1}{2}$ inches; blade, 8 $\frac{1}{4}$ inches; socket, 8 $\frac{1}{2}$ inches; and spud, 9 $\frac{1}{2}$ inches. **18984**

Sword. Straight broad two-edged blade, with deep broad groove in middle of both sides. Hilt wood and leather. Scabbard of hide, with platted thong by which it may be slung. Length: blade, 24 $\frac{1}{2}$ inches; hilt, 7 inches. **18990**

ARBORE WAR HORN, SWORD,
FISHING GAFF, AND STAFF

which it may be slung. Length: blade, 24 $\frac{1}{2}$ inches; hilt, 7 inches. **18990**

War Bonnet. Black ostrich plumes thickly woven upon hemispherical cap made of platted grass. Held in place by leather thongs set with cowries. Diameter, 17 inches; height, 8 inches. **18977**

War Horn. Elephant tusk, pierced on concave side 9 inches from tip. Covered in greater part with leg-skins of antelope, shrunken upon the tusk. They have hair partly cut away in stripes, and have ends of platted leather thong inserted, by which the horn is carried. Length, 29 inches. **18996**



Bag. Used for carrying. Made of grass woven in patterns of light and dark stripes. Length, 29 inches; width, 19 inches.

18989

Fish Hooks (2). Large iron hook, without barb, set in rounded stick about 18 inches in length, around which a heavy cord of twisted fibre, attached at the base of the hook, is wrapped. Used to catch large catfish in rivers. Length, about 21 inches.

18979

BURLE.

Ornament. Brass blade of feather-shape, with median ridge on one side. Projecting end turned over. Worn as an ornament upon forehead. Length, 6 inches.

18886

Wristlet. Double cord of three-ply twisted hide, with slip knot with two miniature feather-shaped ornaments (knives) of highly polished brass attached. Strung with ring of iron wire, ring of ivory, and four rings of coiled copper and brass wire, all apparently finger rings. Length, 13 inches.

18885



BURLE WRISTLET.

DUME (PYGMIES).

Armlet. Ivory, resembling gaping jaws of fish. Bought from Dume, but regarded by collector to have been made by Konso. Diameter, 4 inches; width, 3 inches.

18888

Ear Ring. Twisted brass wire, three inches in length, with loop at end with brass ring on which are two white glass beads.

18891

Necklace. Narrow leather thong, ends united by giraffe hair. Has oval pendant of perforated ostrich shell. Length, 22 inches.

18888

Necklace. Narrow leather thong, with ends united with twisted copper wire. The outer face is set with twenty-six strips of sheet brass at nearly equal intervals. Originally had shell pendant like preceding. Length, 19 inches. Probably a trophy.

18890

BUNNO.

Bow. Hard wood, nearly round in section, with single curve, without nocks for string. Length, 58 inches.

18897

Quiver and Arrows. Identical with 18891 (Arbore). One arrow has wooden shaft with inserted nail-shaped head. 18893

Shield. Leather, rectangular, and convex on the outer side. Ridge projects down middle, back of which is a wooden bow which serves both as a stiffening and as a handle. This is laced above and below the middle, where it is grasped with leather thongs, which are platted about it, and attached at intervals to the body of the shield. At the top is stuck a tuft of black ostrich feathers. Length, 35 inches : width in centre, 9 inches. 18897

Spear. Narrow leaf-shaped blade, with median ridge. Long slender tapering socket. No spud. Length, 84½ inches; blade, 6½ inches; and socket, 17½ inches. 18896

Spear. Narrow leaf-shaped blade filed flat. Spud flattened at end. Coil of twisted iron on shaft above spud. Length, 69½ inches, blade, 8½ inches; socket, 9½ inches: and spud, 8½ inches. 18898

RESHIAT.

Bow. Hard wood, round in section, with single curve, without nocks for string. Length, 58 inches. 18896

Shield. Wicker-work, very narrow. Corners bowed outward with hoops of bent twigs, the ends of which are united with twisted thongs. On the inner convex side is a wooden handle, with a leaf-shaped leather guard attached by thongs. A tuft of black hair is bound on the ends of the projecting twigs at top. Length, 25 inches; width in centre, 6 inches. 18895

KERE.

Ankle Rattles (3) Little iron bells of semi-lunar outline, with slit at bottom formed by juxtaposition of the edges. The clappers consist of small iron balls. The bells are strung on leather thong by means of double holes at top. 18893

Pillow. Carved of hard wood in one piece, and consisting of convex strip 6 x 1½ inches, supported by two legs shaped like an inverted V. These are lashed almost from top to bottom with leather thongs, which have loops attached, one strung with iron beads, for the purpose of carrying. Height, 7 inches. 18892

MELA.

Basket. Bowl-shaped, with thong for carrying. Coiled, and made of grass twisted over central core. Has strap for carrying. Height, 7 inches; diameter at top, 9 inches. 18904

Girdle. String of seeds of *Abrus precatorius*, on cord of double twisted fibre. Length, 22 feet, 2 inches. 19006

Ornament. Crocodile's tooth, perforated through root. Length about 2 inches. 19028

Head Band. Strip of hide from head of goat, with horns. 19008

Snuff Box. Tip of ivory tusk, with leather caps at top and bottom through which pass two platted leather cords for suspension. The latter are united to form a loop at top, and have pendent ends encased in bird bones. Attached to the thong is a small heart-shaped skin pouch containing dried tobacco leaves,— from which the snuff is prepared by grinding in a wooden mortar,— and fragments of nitrate of soda obtained in the crater of the volcano of Megada, which is added to give a pungent taste. There is also a small pendent iron blade, used for removing callous skin. Length box, 2½; total length, 20 inches. 19007

Wristlet. Open ring, made of strips of compressed raw-hide, strung with rings of transverse sections of crocodile teeth. Diameter about 3 inches. 19029

RENDILE.

Knob Stick. Finely finished hard wood. Knob ovate, with two encircling ridges at base. Length, 30 inches. 18882

Spear. Finely made. Leaf-shaped iron blade, with median ridge and long tapering socket. Shaft of light-colored wood. Spud long and tapering to point, corresponding with socket of blade. Length, 82 inches; blade, 8 inches; socket, 19½ inches; and spud, 19½ inches. 18883

H.

Lists of a few words spoken by the Konso, Dume, and Arbore (Amar) tribes.¹

KONSO.

<i>To sit</i> , gudi.	<i>Day</i> , gūgātu.
<i>To come</i> , cōi.	<i>Night</i> , halgehta.
<i>Near</i> , insēgena.	<i>Elephant</i> , arba.
<i>Far</i> , sege.	<i>Sheep</i> , laha.
<i>Man</i> , hami.	<i>Goats</i> , dālla.
<i>Woman</i> , inunda.	<i>Cattle</i> , ōka.
<i>Leg</i> , loga.	<i>Horse</i> , ferda.
<i>Arms</i> , harga.	<i>Tree</i> , gora.
<i>Foot</i> , gūmmito.	<i>To run</i> , geri.
<i>Eye</i> , ilda.	<i>To eat</i> , damme.
<i>Mountain</i> , suba.	<i>To make haste</i> , arrēri.
<i>Fire</i> , abita.	<i>Spear</i> , orāna.
<i>Water</i> , bisha.	<i>Shield</i> , garshāna.
<i>Sun</i> , audidi.	<i>Cloak</i> , ōhada.
<i>Milk</i> , ānna.	<i>To bring</i> , koyen.
<i>Child</i> , ina.	<i>To take</i> , gedi.
<i>Bad</i> , nehr geidi.	<i>To kill</i> , īshi.
<i>Good</i> , bakeile.	<i>What is your name?</i> olāhle.
<i>How much</i> , schne.	<i>Salutation (peace!)</i> , nagehda.
<i>Ground</i> , bīda.	

¹ The different words were collected by the author under great difficulties usually by pointing to objects, and mistakes may have occurred in some instances.

DŪMĒ.

<i>Water</i> , bichi.	<i>Shield</i> , unto.
<i>Man</i> , dirta.	<i>Arrow</i> , lāhke.
<i>Leg</i> , arbore.	<i>Eye</i> , achête.
<i>Foot</i> , farro.	<i>Chin</i> , arre.
<i>Well</i> , ille.	<i>Fingers</i> , harge.
<i>Fire</i> , kate.	<i>Arms</i> , harko.
<i>Sun</i> , galliko.	<i>Grass</i> , ashko.
<i>Day</i> , guia.	
<i>Sheep</i> , glemo.	<i>One</i> , dōōko.
<i>Goats</i> , bourgako.	<i>Two</i> , lahke.
<i>Milk</i> , yāhē.	<i>Three</i> , iza.
<i>Child</i> , ungula.	<i>Four</i> , salla.
<i>Your name?</i> megahako.	<i>Five</i> , koubin.
<i>Cow</i> , lo.	<i>Six</i> , tabbe.
<i>Show me</i> , wansini nargassisi.	<i>Seven</i> , tomme.
<i>To drink</i> , dugi.	<i>Eight</i> , doddin.
<i>Night</i> , gallabo.	<i>Nine</i> , gollan.
<i>Ground</i> , dāmmē.	<i>Ten</i> , kungo.
<i>Tree</i> , gargo.	<i>Twenty</i> , kungo lahke.
<i>Spear</i> , olhāngo.	<i>Thirty</i> , kungo za.

ARBORE AND AMAR.

<i>Near</i> , dewida.	<i>Child</i> , nugul.
<i>Far</i> , segeda.	<i>Your name</i> , mēgakāma.
<i>Water</i> , bichi.	<i>Cow</i> , ōto.
<i>Man</i> , dirta.	<i>Show me</i> , aigitu arge.
<i>Leg</i> , luka.	<i>To eat</i> , kōka.
<i>Foot</i> , farro.	<i>To drink</i> , iki.
<i>Well</i> , ashō.	<i>Ivory (teeth)</i> , ilko.
<i>Fire</i> , ēk.	<i>Elephant</i> , ārbā.
<i>Sun</i> , sono.	<i>Night</i> , gisha.
<i>Day</i> , berdeilo.	<i>Clear spot</i> , bulchi nida.
<i>Sheep</i> , leh.	<i>Tree</i> , gorre.
<i>Goats</i> , reti.	<i>Spear</i> , nan.
<i>To bring</i> , arāo.	<i>Shield</i> , gharsha.
<i>To take</i> , gon iti.	<i>Eye</i> , ille.
<i>Milk</i> , ehno.	<i>Chin</i> , garke.

<i>Beard</i> , arre.	<i>Five</i> , shenne.
<i>Fingers</i> , gubbe.	<i>Six</i> , ghee.
<i>Arms</i> , harke.	<i>Seven</i> , tuzbudda.
<i>Grass</i> , marran.	<i>Eight</i> , suēda.
<i>One</i> , tokodu.	<i>Nine</i> , sagal.
<i>Two</i> , sada.	<i>Ten</i> , tomon.
<i>Three</i> , seseda.	<i>Twenty</i> , tomul lamma.
<i>Four</i> , afura.	<i>One hundred</i> , tomon shell.

I.

COLEOPTERA.

By DR. KARL JORDAN.

THE collection of Coleoptera consists of one thousand and forty-three specimens belonging to three hundred and fifty odd species. With few exceptions the specimens are in an *excellent* state of preservation. As every individual is *most carefully dated*, the collection gives us *many important* hints as to the faunistic differences of the districts traversed by Dr. Donaldson Smith, especially the peculiarities in the fauna of the high and cold country round Sheikh Husein and Sheikh Mohammed. The number of species is *remarkably high*, and that gives the collection a special scientific value; of many species there are only from one to three examples; two small coprophagous beetles (*Psammobius*) are, however, represented by more than one hundred and fifty individuals. A very great percentage of the species belong to the TENEBRIONIDÆ, among which I find the curiously shaped and sculptured *Sepidium crassicauda* Gestro, and some other not less interesting forms which seem to be unknown to science.

It was our intention to have the entire collection worked out, and the manuscript delivered in time for the printing of the present volume. But as there is no entomologist in Europe who has time enough to work out carefully all the families represented in the collection, the greater portion of the specimens had to be submitted to specialists. Owing to several circumstances, especially to the rapid succession of articles dealing with the coleopterous fauna of East Africa, appearing both in Europe and the United States of America, it was not possible to finish all the manuscripts at the appointed time; and I am, therefore, to my regret, compelled to restrict the account on the Coleoptera to the descriptions of some of the striking novelties, hoping that the other new species can soon be published in another place.

SCARABÆIDÆ.

BY I. W. SHIPP.

1. *Helicocoris donaldsoni*, Shipp, sp. nov.

♂. Black, shining. Clypeus, six-angulate, the two posterior angles very small but sharply distinct, the two anterior angles very much produced and reflexed, but obtusely pointed, with a large semicircular depression between them, the two intermediate teeth or angles almost porrect and acute. A rounded ridge runs from each of the two anterior projections towards the disc. Disc without horns or tubercles, coarsely and transversely covered with a network of fine carinæ running into each other. A distinct carina runs from above each eye towards the intermediate teeth or projections of the clypeus. Antennæ and palpi pitchy. The underside of the reflexed margin of the clypeus is quite glabrous, the base being thickly punctured with coarse punctures and sprinkled with light brown setæ.

Thorax transverse, with the disc produced into three distinct, elongated points, the centre one being very elongate and extending over the head with the extreme point rounded, the front portion being truncate. Anterior angles slightly rounded, posterior angles sinuate, with the posterior margin only slightly sinuated. Thorax rugosely-punctate, with the punctures finer on the disc. The centre of the truncated portion is strongly punctured with large oval rugose punctures, and distinctly asperate under the middle projection, but impunctate under the two side ones. Front and sides furnished with long, reddish setæ.

Elytra very strongly striated, striæ very finely punctate; interstices sprinkled with some very fine punctures. More thickly punctured between the two lateral carinæ.

Pygidium rather coarsely punctured and rounded at apex. Anterior tibiæ 3-dentate, long, thick, and with a sharply raised carina extending from the apex to the base. The apex is furnished with a more or less porrect tooth, and another is situated on the carina at the base of the middle exterior tooth; rather thickly punctured with more or less pyriform punctures. Femora glabrous and impunctate on the disc of the under surface, but coarsely punctured round the sides, and covered with reddish-

brown hairs. Intermediate coxae with a few scattered punctures. Metasternum smooth and glabrous on the disc, but punctured with setose punctures round the sides and at the base. Sides of abdomen very thickly covered with a mass of reddish-brown hairs; abdominal segments impunctate on disc, but punctured more or less thickly at sides.

Length, 59 mm. ; breadth, 35 mm.

Lake Stephanie to Lake Abaya. 16th May, 1895. This huge insect is very remarkable for the peculiar development of the thoracic horns.

2. *Heliocopris coriaceus*, Shipp, sp. nov.

♀. Near *hamadryas* F. Color dull, pitchy black; head transversely covered with a network of fine carinæ running into each other. Clypeus smooth, sinuate, and rounded, front margin very slightly reflexed. The disc is raised into a trituberculated, transverse ridge, with two small carinæ extending from each of the two outside tubercles towards the side of the head. The small carinæ are not so strongly marked as in *hamadryas*, Fb. Thorax, with the discal elevation strongly sinuate, the centre curve being rounded and ending with two small tuberculate points; the truncated portion being strong, granulated, and covered with reddish-brown hairs.

The disc of the thorax is strongly punctured with rather large punctures running into each other towards the centre, but becoming more oval and elongated at the sides. The central lobes are impunctate.

Elytra finely, but thickly, punctured all over with oval punctures, very finely punctured between the lateral carinæ; interstices are almost obsolete on disc, but become plainer towards the lateral margins. Sutural interstice almost impunctate and glabrous.

Pygidium obtusely pointed at apex, emarginate, and punctured sparingly with rather small, shallow punctures.

Metasternum punctured all over and with a number of long, reddish hairs on the anterior portion, and with a depression on the posterior portion.

Sides of abdomen covered with reddish hairs, abdominal segments impunctate on disc.

Length, 42 mm. ; breadth, 26 mm.

Amarato to Lake Stephanie, 23. iv. 96.

Differs from *hamadryas* F., in having the elytra much narrower and more attenuate behind, more thickly punctured on the sides of the thorax, and having two smooth places on the disc. The metasternum is also more evenly punctured, while the sixth abdominal segment from the pygidium is quite straight; in *hamadryas*, it is distinctly curved in the centre.

3. *Copris Converiusculus*, Shipp, sp. nov.

♀. Black, short, and very convex.

Head with the clypeus produced in front into two small teeth slightly reflexed, thickly covered with fine punctures, and furnished with a small obtuse tubercle in the centre of the head. Thorax broadly transverse, smooth, the margins distinctly emarginate, anterior angles produced in front, posterior angles almost obsolete, posterior margin rounded. Thorax covered with fine rugulose punctures and a slightly impressed longitudinal line on disc. Elytra somewhat ovate, with the striae evenly and regularly punctate, interstices plain. Pygidium transverse, punctured. Anterior tibiæ tridentate, sparingly punctured, and slightly setose. Undersides of intermediate and posterior femora pitted with a few small punctures.

Mesosternum impunctate on disc, strongly punctured at the sides. Length, $7\frac{1}{2}$ mm.

Aimola to Higo, March 19, 1895.

4. *Onthophagus smithi*, Shipp, sp. nov.

Allied to *O. harpax*.

♂. Color dark green, with the head and anterior portion of the thorax metallic gold.

Head of a golden color, with the clypeus scarcely produced in front and slightly emarginate, rather thickly covered with punctures, especially round the margins. A very long horn of a dark green color, and covered with minute punctures and bent over toward the thorax, rises from the centre of the head. Thorax with the disc dark green and produced into two pointed projections which extend towards the head and are divided by an obtusely pointed triangular-shaped cleft. Below these the thorax is truncated, excavated, sparingly punctured with minute punctures, and of a brilliant gold color.

The sides of the excavation near the anterior angles are pro-

duced into two sharp, rather porrect points. The anterior margin is sinuate, the anterior angles produced and pointed, the lateral margins long and sinuate; the posterior angles are obsolete and the posterior margin is produced in the centre to a scutellary projection. A large cicatrix is situated on each side near the lateral margins. The disc of the thorax is evenly and thickly punctured. Elytra attenuated towards apex, somewhat cordiform, deeply striated, interstices covered with rather fine punctures, and the sutural interstices almost glabrous. Pygidium finely punctate.

Antennæ with the first joint darker, the remainder and the club ochreous, palpi darker ochreous.

Anterior tibiæ four-dentate, the basal tooth almost obsolete. Upper surface smooth and sparingly punctured. Intermediate femora only punctured at apex; posterior femora sparingly punctured all over.

Metasternum impunctate on disc, punctured sparingly round the sides. Abdomen darker in color, with a few scattered minute punctures; the punctures get thicker and closer together at the sides, which are covered with light hairs. Length, 14 mm.

Hab. Aimola to Higo; April 5, 1895.

5. *Aphodius smithi*, Shipp, sp. nov.

Close to *wahlbergi* BOH. Head and thorax ochraceous, with the exception of one black spot in the centre of the head and four spots set in a square on the disc of the thorax. Clypeus slightly emarginate, and sparingly punctured with fine punctures. Antennæ ochraceous, with the club of a dark grayish color; trophi ochraceous. The two anterior spots on the thorax are smaller than the posterior spots. Thorax obsoletely punctured, the punctures being very minute, shallow, and almost invisible on disc.

Elytra black, with the basal third, except the sutural interstices, ochraceous, and an ochraceous, transverse, irregular spot on the apical third close to the apex of the elytra, which do not extend to the margins. Elytra punctate striate, interstices smooth. Underside dark ochraceous, with the exception of a small spot in the centre and a faint speck at the apex of each femur black; and a small black spot in the centre of the mesosternum. Very faintly punctured, abdominal segments furnished with a few rows of setose punctures. Length, $10\frac{1}{2}$ mm.

Higo to Amara; April 18, 1895.

Differs from *wahlbergi* BOH. in having the apical third of the elytra black, with the exception of two irregular but well defined ochraceous spots, whereas in *wahlbergi* only the intermediate third is black and the apical third has a small lunulate black spot close to the margin, while nearly the whole of the margin of the apical third is ochraceous. In *wahlbergi* the black color does not extend the whole length of the sutural interstice, while it is entirely ochraceous on the ventral surface.

CARAMBYCIDÆ.

BY DR. K. JORDAN.

6. *Philagathes bipartitus*, Jord., sp. nov.

♀. Head and pronotum, first joint of antennæ, and four anterior femora, rufous red; anterior $\frac{1}{2}$ of elytra orange chrome, and the whole under surface reddish orange. Rest of antennæ, scutellum, posterior $\frac{4}{5}$ of elytræ, base of middle femora, posterior femora, and all the tibiæ and tarsi, black.

The sculpture of this species is less coarse than that of *Ph. latus*, THOMSON, Syst. Ceramb. p. 197 (1864), and *Ph. wahlbergi*, Öfvers. Vet. Ak. förh. p. 68 (1872). The pronotum has no raised middle line, and the lateral tubercle of the prothorax is small. The elytra are minutely and densely punctured all over; the interstices of the punctures are raised to form granules on the posterior half; there are no longitudinal lines as in the two species mentioned before.

Length, 16 mm.; elytr., 11 mm.; breadth, 4 mm.

One female specimen found between Aimola and Higo, March 20, 1895.

7. *Demagogus donaldsoni*, Jord., sp. nov.

♂. This species is in structure identical with *D. larvatus*, THOMSON, Phys. II., p. 172 (1868), from Abyssinia, of which species the Tring Museum possesses a considerable series of both sexes, mostly collected by Heuglin, and differs from that species only as follows: —

The basal fourth of the elytra is, like the thorax, head, and underside, shining black; the black area is convex posteriorly, being at the suture more extended than at the sides; the rest of

the elytra is clothed with a very dense covering of short buff yellow hairs, which at the very suture assume a whitish glaucous green tint.

Length, 31 mm.; elytr., 21 mm.; breadth, 11 mm.

One male found on November 9, 1894, at Budda, Upper Shebeli River, at 7,800 ft. (wet country).

8. *Rhaphidopsis guttata*, Jord., sp. nov.

♂ Black, spotted with primrose yellow, as follows: —

Head with two rounded spots in front near the inner margin of each eye; an elongate spot upon the cheek, a minute one behind the eye, and two streaks, convergent anteriorly, upon the vertex.

Pronotum on each side with a lateral and a dorso-lateral vitta, the latter interrupted in the middle.

Elytra each with two dots in basal fourth close to the lateral edge, and a third minute one at the beginning of the apical third more removed from the margin of the elytron; a series of six dots upon the disc from base to apex, equally distant from one another, the third the largest and more transverse, the fourth the smallest, the fifth closer to the suture touching the sutural, impressed stria.

Prosternum with a semi-interrupted vitta on each side; mesosternum with two lateral dots; metasternum with two lateral streaks; four basal segments of abdomen with a rather large lateral dot which does not reach the base of the respective segment.

Head and thorax without obvious puncturation; lateral teeth of prothorax distinct. Elytron coarsely punctured, except towards the apex, which is almost smooth; apex rounded.

Length, 10 mm.; elytr., 7 mm.; breadth, 2½ mm.

One male between Aimola and Higo on March 25, 1895.

CUBILIA, Jord., gen. nov. (*Niphoniinarum*).

♂. Cavity of middle coxa open; claws divergent; middle tibiæ without groove; antennæ eleven-jointed; head retractile; femora unarmed. Eyes divided; metasternum rather short; intercoxal processus of mesosternum declivous.

Front of head inclinate, almost ventral; anterior portion abruptly and deeply impressed in the middle; the lateral edge of the cavity thus formed produced into an oblique lobe on each side, which partly cover the cavity and protrude beyond the

anterior margin of the front of the head ; lower edge of cheek raised ; mandibles very large.

Rough with hairs all over. Antennæ thickened towards the apex ; third joint almost twice as long as the scape. Prothorax very short ; especially the prosternum much reduced ; with lateral tooth close to the base. Elytra short, convex, truncate at the base, rounded together at the apex.

Type: *Cubilia donaldsoni*, Jord., sp. nov.

The structure of the front of the head is very peculiar, and is most probably found only in the male sex. In the dilated antennæ, *cubilia* reminds one of some other African genera, *Thercladodes*, THOMSON, Phys. I. p. 114 (1868), and *Cloniocerus*, CASTELN., Hist. Nat. Col. II. p. 468 (1841).

9. *Cubilia smithi*, Jord., sp. nov.

♂. Black ; base of femora, middle of sterna, and abdomen rufous ; densely clothed with an ochraceous pubescence. Head not impressed between the antennæ ; with a black spot behind each eye and a third larger one upon the occiput. Antennæ black, not quite reaching the apex of the elytra ; eyes small.

Prothorax $1\frac{1}{4}$ mm. long and 3 mm. broad, constricted at the base, evenly convex ; lateral tooth in front of the basal sulcus. Three black vittæ ; one at each side stopping at the tooth, narrow, and the third upon the disc, about 1 mm. broad, widest a little beyond the middle, suddenly narrowed at the base.

Scutellum and two spots on each elytron black ; the first spot stands close to the suture and is basal, diameter about 1 mm., its outer edge rounded ; the second spot is postmedian, transverse, also close to the suture, its length (in transverse direction) about 2 mm. ; besides these spots there is a black dot upon the humeral angle. The elytra are punctured, but the punctures are concealed under the dense pubescence.

Length, $8\frac{1}{2}$ mm. ; elytr., $5\frac{3}{4}$ mm. ; breadth, $3\frac{1}{4}$ mm.

One specimen of this very curious insect found between Aimola and Higo on March 19, 1895.

J.

EMPEROR MENELEK'S LETTER.

(FRENCH TRANSLATION.)

Le Lion vainqueur de la Tribu de Juda, Empereur d'Éthiopie,
etc. . . .

(*Lettre addressée à Mr. Arthur Donalson Smith.*)

Salutations.

J'ai reçu votre lettre écrite le 1^{er} octobre 1894 de Shiné.

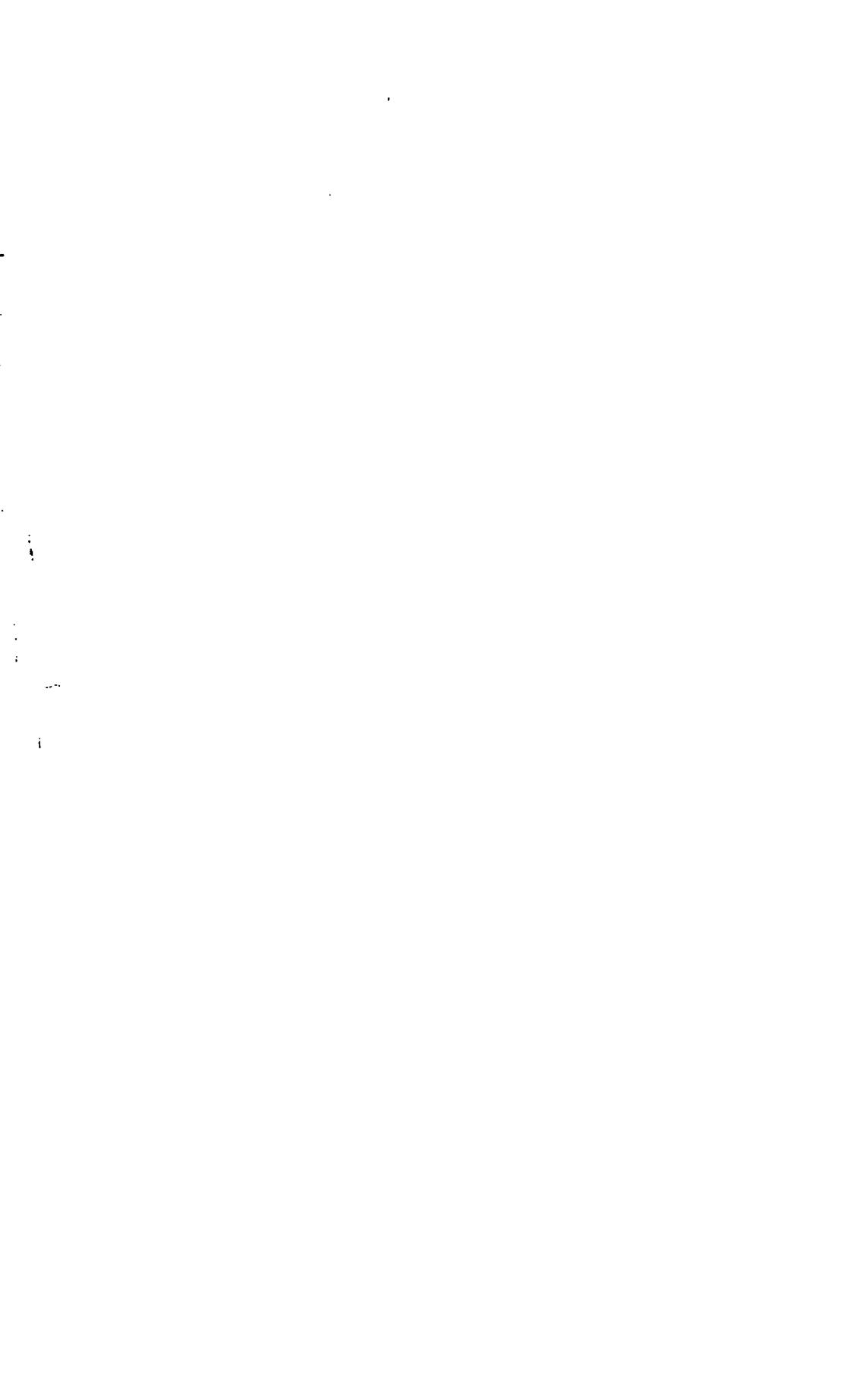
J'ai appris que vous êtes venu dans un but intéressant l'Europe pour visiter les pays Gallas situés au sud de l'Éthiopie. Seulement l'époque que vous avez choisie pour ce voyage coïncide avec celle à laquelle je vais moi-même partir en expédition, et cela se trouve que vous voulez traverser le pays même que je veux soumettre. Je crains qu'en passant par cette contrée vous ne vous trouviez entre les "Gallas" et les hommes de mon armée. Dans le cas où il vous arriverait un malheur, cela me ferait beaucoup de peine. Je serai très content si vous traversiez ces pays lorsqu'ils seront soumis. Je vous dis cela parce que lorsqu'un voyageur a une idée, il vaut mieux qu'elle réussisse; s'il tombe dans un précipice c'est un malheur pour lui et pour le roi du Pays.

Je ne vous dis pas de ne pas mettre votre projet à exécution, mais j'espère que vous aurez la patience d'attendre 2 ou 3 ans lorsque ces pays seront tout à fait soumis.

ABDIS ABABA, 29 octobre 1887 (style abyssin.).
7 novembre 1894 (style français).







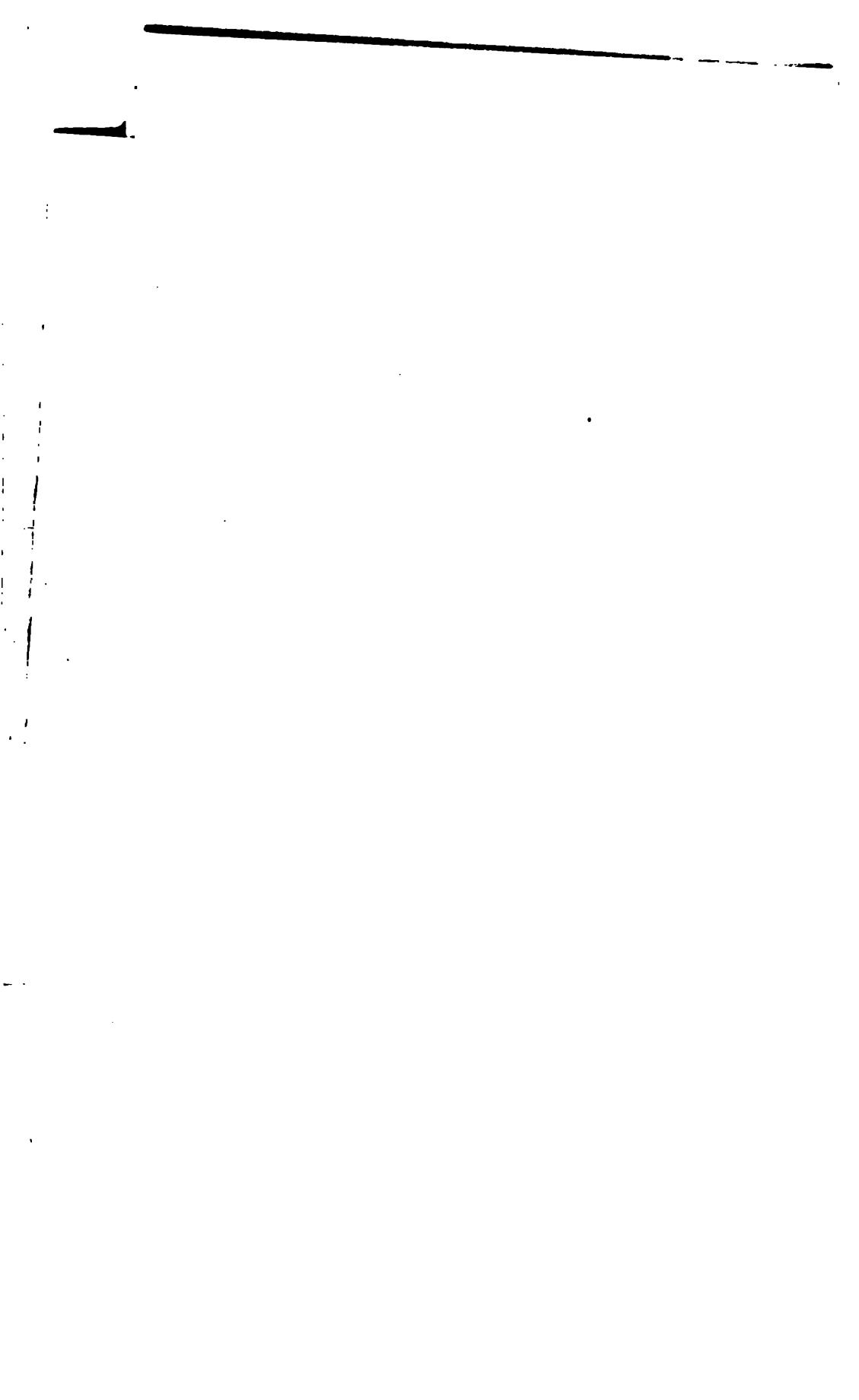


222154

1118

Type of B

d Arm



Ed

INDEX.

ABADIE, M. D', explorations of, 2.
Abal Gal Gallo, 211.
Aballa, Lake, 206.
Abaya, Lake, 206, 215, 220, 224, 226, 229, 230; description of, 230-232; 236, 372, 387.
Abba Garima, crushing defeat of the Italians at, 369.
Abbott, Dr. W. L., 430.
Abdi Abrahim, 351.
Abdi Farrah, 64, 132, 161, 170, 222, 293.
Abdi Kereen, 64, 98.
Abdis Ababa, capital of Abyssinia, 81.
Abdulla, 105.
Abdulla, 26.
Abdulla Dualla, death of, 254.
Abni Segard, 38, 39.
Abofilato, King, 177, 182, 185, 195, 200, 203, 205, 207, 211, 212, 243, 245.
Abougasin, Mount, 56, 66.
Abyssinia, manufactures of, 80; capital of, 81; the future of, 369; ethnographical objects from, 433.
Abyssinians, the, 20, 23, 43, 44, 46, 48, 56, 57, 61, 63, 66, 67, 74; customs of, 77; description of, 77-80; claim descent from Menelek, son of Solomon, 81; 94, 97, 107, 111, 112, 117, 118; atrocities perpetrated by, 119; 120, 143, 152, 157, 177.
Acacia, 240.
Academy of Natural Sciences of Philadelphia, the, 84, 368.
Acantiidæ, family, 415.
Acerina zillii, 377.
Acherontia, genus, 412.
Acherontia atropos, 412.
Aden, 4, 5; the author arrives at, 6; arrangements for expedition completed at, 7; the author sails from, 8; 99.
Aden Aoule, 170; experience with a rhinoceros, 226, 227, 228, 234, 336, 339, 343, 344.
Aden Arralla, 26, 115.
Aden, Gulf of, 8, 154.
Adones, the, 125, 126, 129, 133; attack Salan, 135, 143; treated as slaves by the Dagodi, 153, 154.
Ætheria, 425.
Afgab tribe, the, 138; description of, 141; at war with the Dagodi, 143.
Africa, wonderful rapidity of development in children of, 120; will eventually be divided among European powers, 369.
African beasts, great vitality of, 140.
Agama batillifera, 17.
Agaos, 392.
Agaristidæ, family, 408.
Agelena leucopyga, 389.
Agelenidæ, family, 389.
Agrotis, genus, 415.
Agrotis, sp.? 415.
Agrotis spinifera, 415.
Ahamed Aden, 25, 99, 133; death of, 136.
Ahamed Noor, 71, 74.
Aimola, the plateau, 173, 174, 177, 178, 180, 397, 402, 406.
Akhbar, the sword of, 60.
Alaudula somalica (Sharpe), 127.
Alestes affinis, 384.
Alestes rüppellii, 384.
Alia Bay, 331.

Ali Bindale, Somalis claim descent from, 15.
 Aloe, 240
 Amar range, the, 270, 272.
 Amar tribe, the, 254; attack the expedition, 255; attempt a raid on the expedition, 284.
 Amara, the, 177, 206, 211, 214; hospitality of, 215, 216, beautiful village of, 215, 217: characteristics of, 216: 223, 230; angry with Dr A. Donaldson Smith for not joining in raid, 236; the Konso tribe compared with, 239, ethnographical objects from, 437; list of words spoken by, 445.
 Amara Mountains, the, 213, 214, 225.
 Amarato, 449.
 Ammonites, 423, 426.
Ammonites biplex, 429.
Ammonites polyplocus breviceps, 428.
Ammonites rotundus, 429.
 Anglo-Italian treaty of 1894, 369.
Anomoætes, genus, 409.
Anomoætes nuda, 409, 420.
 Antelopes, 62, 92, 114, 353
Antheræa, genus, 412.
Antheræa zaddachi, 412.
 Aoule, 116, 139, 151.
Apamiidæ, family, 416.
Aphodius smithi, 451.
Araneæ, order, 386.
Araneus mimosuola, 388.
Araneus nauticus, 387
Araneus semianulatus, 388
 Arbore, the, 252, 254: villages of, 256; meeting with the expedition, 257-261; ornaments of, 261; wealth of, 262; chiefs of, 262; dress of, 262; description of, 263; attack the expedition, 264; raids on the Rusia, 296; ethnographical objects from, 437; list of words spoken by, 445.
Archispirostreptus beccarii, 407
Archispirostreptus bottlegi, 406.
Archispirostreptus dodsoni, 405.
Archispirostreptus phillippsii, 405.
Archispirostreptus smithii, 406.
Arctiidæ, family, 409.
 Argassa, 200, 211, 212
Argiope ligociata, 387.
Argiope lobata, 387
Argiope trifasciata, 387
Argiopidæ, family, 387.
Argyraæpta undulata, 388.
 Aro Mountains, the, 278, 299, 309, 310.
 Aro tribe, the, 277, 320.
 Arramba, 392.
 Arshab Shada, chief of the Burle, 271, 275.
 Arusa Galla country, the, 60.
 Arusa Gallas, the, 47: photographs of, 158, 178; ethnographical objects from, 430.
 Arusha, 406
 Aseba, 396.
 Aseba people, the, 206, 208.
Aspidoceras acanthicum, 427.
 Assouan, 395.
Astrodesmus concolor, 404.
Astrodesmus contortus, 404.
Astrodesmus stellifer, 405.
 Athi, the, 12.
Atlantica, 396.
Attidæ, family, 391.
 Aubry, 424.
Auchmis, 414.
 Aulihans, the, 129, 134; attack Salan, 135: 138.
Avicularida, family, 386.
 Awad Aden, 349.

Balfouri, 396.
 Barawa, 400.
Barbus, 385.
Barbus bynni, 385.
 Bardera, 185, 230.
 Bargheilo, 149.
 Bari, town of, 111, 114; the author's journey to, 116; the James brothers' expedition to, 120; Lord Wolverton's expedition to, 120, 129, 130, 131, 132, 135, 149, 157.
 Barmetawen, water-holes, 150
 Baro Archali, chief, 266; held as a hostage, 269.
 Bather, F. A., 424.
 Baulewain, town of, trading at, 119; natives of, 119.
 Bee-eaters, red-breasted, 132, 328; green, 152, 158
 Bebt Madu, 152, 153
 Bent, J. Theodore, 371.
 Berbadeh, 46

Berbera, town of, 2; the author arrives at, 8, 81, 107, 110, 111, 117, 118, 131, 135, 136, 137; circuit completed to Zanzibar, 253, 374.

Bergün, village of, 129.

Biaho, village of, 135.

Bieusora, 37.

Biton brunneipes, 394.

Biton fuscipes, 394.

Biton lividus, 395.

Blue Nile, the, 229.

Bodele, expedition arrives at, 29, 37.

Boholgarshan, 386, 400, 403.

Bolti of the Nile, the, 378.

Bonga, 320.

Borali tribe, the, 277.

Boran, the, country of, 88, 174, 177; customs of, 178, 207; trading with, 180; villages of, 182; attack the expedition, 195; peace made with, 197, 230, 239; ethnographical objects from, 206, 207, 208, 435.

Borati, 364.

Borelli, M., explorations of, 2.

Boris, Prince, meeting with the author, 114; difficulties in reaching Lake Rudolf, 295.

Bottego, Captain, hostility toward the Gallas, 2; line of march of, 150.

Boula, 160.

Boulenger, Mr., 369.

Bourgha River, the, 37.

Bourgha Tug, 37.

Boyi, Lake, see *Stephanie, Lake*.

Brachiopod, fossil, 423.

British Africa, 424.

British Museum of Natural History, the, 4, 131, 368.

Brown, Shipley, & Co., Messrs., 4.

Budda, 453.

Budda, the plateau, 88, 94; expedition camps on, 97.

Budda Ardesa, the plateau, 178.

Budessa Galana, the, 223, 232.

Buffalo, 238, 331.

Buki tribe, the, 308.

Bulhar, 4, 8.

Buma tribe, the, Lieutenant von Höhnel visits, 298, 300.

Bunn, definition of, 114.

"Bunn" Dagaboor, 114, 116.

"Bunn Seila," the, 19.

Bunno, the, valley of, 278.

Bunno tribe, the, 274, 277; description of, 278; at war with the Kuli, 278; threaten to attack the expedition, 279; treachery of, 283; ethnographical objects from, 441.

Buntal, 152, 153; natives of, 154.

Bura, the, picturesque villages of, 272; supremacy over the Dume pygmies, 275.

Burchell's zebras, 212, 238.

Burga, the, 213.

Burkeneji Elmolo, the, village of, 332.

Burkeneji tribe, the, 291, 349.

Burle tribe, the, 261; villages of, 270; description of, 271; ethnographical objects from, 441.

Burton, Sir Richard, efforts to explore the Galla countries, 2; the Somali women, 12; derivation of the Gallas' name, 81.

Bush buck, 231.

Busia, the, description of, 230.

Buthus eminii, 402.

Butler, Dr., 410.

Butterflies, 66.

Cacæcia, genus, 419.

Cacæcia occidentalis, 419.

Cactus, 240.

Cainozoic alluvial deposits, 425.

Callilepis (Gnaphosa) scioana, 387.

Callimorpha, genus, 410.

Callimorpha tigris, 410.

Camelopardalis aethiopicus, 356.

Canale, the, 88.

Cape Verde Islands, 396.

Caradrina, genus, 416.

Caradrina melliflua, 416, 420.

Carambycidæ, 452.

Catfish, 132, 254, 308.

Caves of Wyndlawn, the, visit to, 82-91; description of, 84-88; 150.

Cedars, 154.

Cephalophus abyssinicus, 93.

Cephalopoda, fossil, collected by the author, 426.

Cerocala, genus, 417.

Cerocala illustrata, 417, 420.

Chalcosiidæ, family, 409.

Chanler, William Astor, 140, 170, 351; line of march of, 358.

Charidea, genus, 409.

Charidea homochroa, 409, 420.
 Chickens, of Africa, 130.
Chilena, genus, 413.
Chilena donaldsoni, 413, 420.
Chilopoda (Centipedes), class, 403.
 Choffat, 428.
Chromis, species of, 108; 328.
Chromis niloticus, 231, 378.
Chromis spilurus, 378.
Chromis tristrami, 378.
Citharinus geoffroii, 384.
Clarias gariepinus, 381.
Clarias lazera, 378.
Clarias mossambicus, 381.
Clarias smithii, 378.
Cloniocerus, 454.
Clubionidae, family, 388.
Cobus defassa, 238, 328.
Cobus ellipsiprymnus, 328.
 Coke's hartebeests, 212, 238, 311.
Coleoptera, 447.
 Coles, John, Map Curator of the Royal Geographical Society, 4.
Colobus guereza, 287.
Conchylia, genus, 419.
Conchylia frosinaria, 419.
Conchylia smithii, 419, 420.
 Congo Free State, the, 372.
Copris Convexusculus, 450.
 Coptic religion, the, 78.
 Copts, the, 78.
Cormocephalus mirabilis, 403.
 Cormorants, 248, 253, 328.
 Corn, Indian, 126, 158, 215.
 Cox, Capt. L. Z., Acting Resident at Berbera, 9.
 Cox, Mrs. L. Z., 9.
Crambites, 419.
Creagra, genus 412.
Creogra adspersa, 412.
 Crick, G. C., 423; on the fossil Cephalopoda from Somaliland collected by the author, 426.
 "Crocodile Camp," 39.
 Crocodiles, 113, 123, 132, 137, 251, 254, 359.
Cubilia, 453.
Cubilia donaldsoni, 454.
Cubilia smithi, 454.
 Cuckoo, black-colored, 248.
 Culemboe Count, expedition of, 26.
 Culin, Stewart, Catalogue of Ethnographical Objects from Somaliland and the Galla Country, collected by the author, 430.
 Curague, 50, 224.
Cyclosa insulana, 388.
Cycnia, genus, 410.
Cycnia madagascariensis, 410.
Cycnia melanogastra, 410, 420.
Cyligramma, genus, 417.
Cyligramma latona, 417.
Cymbidæ, family, 411.
Cyrtophora citricola, 388.
Cyrtophora dorsuosa, 388.

DABULLI, 409.
Dacetum trigonopoda, 404.
 Dacheto, Tug, 37.
 Dagaboor, plain of, 114.
 Dagodi, the, country of, 142; description of, 143; at war with the Afgab, 143; fear of white men, 150; treat the Adones as slaves, 153; 160; ethnographical objects from, 151, 434.
Damaliscus jimela, 291.
 Darda Tarri, 105.
 Darde River, the, 43, 44, 46, 49, 65, 69, 102, 405.
 Dardi Hari, 48.
 Daro Mountains, the, 49, 65, 68, 101, 105.
 Daro, Tug, 107.
 Daroli River, the, 102.
 Daror, 411.
 Darrar, 49.
 Dawa River, the, 143, 152, 157, 160, 162, 163, 165, 166, 167, 174, 176, 229, 384.
 Dawa valley, the, 172.
 Decken, Baron von der, 424.
Deltoides, 418.
Demagogus donaldsoni, 452.
Demagogus larvatus, 452.
 Demble, 56.
 Denneck River, the, 83, 88.
 Dere-godle, 11.
 Dewitz, 413.
 Dhum palms, 38, 154.
Diaphone, genus, 411.
Diaphone mescambicensis, 411.
Diaphone sylviana, 411.
 Dime tribe, the, 277.
 Dinko, the cow, 171.
Diplopoda (Millipedes), class, 404.

Distichodus rudolphi, 384.
 Dodson, Edward, 4, 7, 24, 26, 29, 30, 39, 65, 66, 92, 98, 100, 101, 106, 108, 110, 112, 113, 118, 123, 131, 132, 137, 138, 149, 152, 158, 162, 163, 164, 170, 171, 174, 175, 179, 195, 196, 208, 212, 221, 222, 224, 225, 235, 243, 248, 252, 253, 255, 264, 265, 266, 271, 276, 279, 280, 281, 283, 284, 285, 286, 289, 290, 292, 295, 298, 301, 323, 331, 332, 334, 335, 342, 349, 350, 353, 355, 356, 359, 360, 363, 364, 365, 367.
 Dolbahanta, the, 15.
 Dombalak, 414.
 Donaldson, Lake, discovery of, 254.
Donaldsonia stenopetala, 328, 329.
 Done, the, 230.
 Dooloob, 398.
 Douville, 424.
Drassidae, family, 387.
 Dualla Farrah, 19, 41.
 Ducks, whistling, 251, 253, 328.
 Duiker, Abyssinian, 93.
 Dume pygmies, the, 272; description of, 273; probably the aborigines of Africa, 274; ornaments of, 275; conquered by the Bura, 275; ethnographical objects from, 441; list of words spoken by, 445.
 Durrha, 123; red and white, 130.
 Durrha fields, 126, 158, 215, 307, 314.

EA BULLA, chief, 266.
 Eagles, 328.
Earias, genus, 411.
Earias chromataria, 411.
Echemus Pavesii, 387.
 Edgehr, 190.
 Egrets, 126, 231, 253.
 Ehe Gudi, village of, 262, 266.
 El Dere, the spring, 182, 277.
 Elephant hunting, 58, 59, 113, 174, 175, 179, 221, 224, 225, 238, 244, 252, 334-339, 342-345, 353.
 Elgume, the, country of, 296; villages of, 298; 300.
 Elmi, death of, 193.
 Elmi, Rev. Mr., 365.
 El Modu, 166, 167, 170, 173, 328.
 Elmolo, the, 294, 327, 331.
 Elmolo Bay, 332.
 El Re, well of, 247.

Elwak, Mount, 108.
 Elwayi Mountains, 212.
 England, importance of checking Abyssinian advance, to, 370-374; interests along the Nile, 372.
Erastria acclivis, 415.
 Erer, Mount, 184.
 Erer River, the, 29, 32; description of valley of, 32; 37, 38, 56.
 Ethnographical objects from Somaliland and the Galla country collected by the author, 430.
Eublemma, genus, 415.
Eublemma glaucata, 415, 420.
Euphorbias, 240.
Eurydesmus contortus, 404.
Eutropius depressirostris, 231, 381.
Euzophora, genus, 419.
Euzophora, sp. ? 419.

FEJI, 44.
 Felder, 415.
Fidonidae, family, 419.
 Finches, red-breasted, 126; 234.
 Finik, 109.
 Fishes, Dr. Albert Günther's report on the author's collection of, 377.
 Fishing, 108, 123, 131, 163, 231, 240, 251, 328, 331.
 Folle, well of, 208.
 Fourth of July in Africa, the, 285.
 French, the, 371.
 Furza, 48.
 Futterer, 427.

GABBRA, the, 182, 183; villages of, 185; ethnographical objects from, 435.
 Gabr Amaria, description of, 50.
 Gagaap, 20.
 Galana, valley of, 223.
 Galana Amara River, the, 213, 214, 221, 229, 231, 232, 235, 236; dangers in following, 237; 240, 245; empties into Lake Stephanie, 247; 252.
Galeodes arabs, 392, 394.
 Galla countries, the, difficulties in exploring, 2; Sir Richard Burton's efforts to explore, 2; the author's plans for expedition through, 3; universally thought impossible to enter, 5; thinly populated, 46; description of, 47.

Galla River, the, 81.
 Gallas, the, hostility to white men, 2; fond of ornaments, 56; 68; derivation of name, 81; unsubdued, 105; poverty of, 108; raids of the Ogaden Somalis upon, 111; 180.
 Galo tribe, the, 320.
 Galugop, Tug, 108.
 Gambia River, the, 384.
 Ganana River, the, 2, 88, 138, 139, 143, 150, 152, 153, 157, 158, 160, 165, 176, 220, 224, 226, 229, 319.
 Garca, 185.
 Gardubbela, 30.
 Gant, the camel, 111, 171.
 Gazelles, 11, 17, 186, 189, 213, 221, 229, 234, 252, 255.
 Gazelles, Thompson's, 190, 238.
 Gazelles, Waller's, 165, 175, 185, 238.
 Geese, 253.
 Geese, Egyptian, 126, 328.
 Geledi, town of, 125, 129; largest town in Somaliland, 130, 131; 385.
 Gendi fly, the, poisons the camels, 240, 252.
 Geological Collection, note on the author's, 423.
Geometrites, 418.
 Gere Galla (Badi), 160; ethnographical objects from, 434.
 Gere Galla (Libin), 160, 165; villages of, 166, 174; 176; description of, 176; trading with, 177; ethnographical objects from, 434.
 Gere Gallas, the, 160; subdivisions of, 160; 180.
 Gere Morro, 160.
 German East Africa, 424.
 Germans, the, 372, 373.
 Gillett, Fred, 4, 8; shooting trip in the Haud, 19; escort of, 26; at Bodele, 29; lion shooting, 32-36; a leopard drive, 36, 37; 38, 39, 40, 41, 50; description of elephant hunt, 58, 59; hunting antelope, 62, 93; volunteers to visit General Wal-da-Gubbra, 63; letter from, 63; account of his journey, 67-72; present from General Wal-da-Gubbra, 69; reception by General Wal-da-Gubbra, 70-72; 74, 81; visits the "Caves of Wyndlawn," 82-91; farewell to General Wal-da-Gubbra, 92; 100, 101, 106; 107, shooting zebras, 108; fishing, 108; hunting in Somaliland, 110; 111; amusing experience with Dodson, 112; elephant-hunting, 113; 118; lion-hunting, 119; crocodile shooting, 123; hunting water-buck, 131; amusing experience with the natives, 134; receives news of his father's death, 135; plans to return home, 135; photographs of the Arusa Gallas, 158.
Gilletta Sepalosa, 329.
 Gillett Mountains, the, 49, 65, 66, 73.
 Ginea, town of, 62, 65, 66, 67, 72; location of, 73; inhabitants of, 81, 82; 91, 94, 106.
 Giraffes, 163, 179, 212, 213, 291, 354, 355.
 Gneisses, Archæan, 423.
 Gobat, description of the Somalis, 11.
 Gof, 410.
 Goff, village of, 186.
 Gohulle, well of, 139.
 Gondaraba, village of, 266.
 Gon Taka, 160.
 Gonjabelo, the, 230.
Gonodela, genus, 418.
Gonodela amandata, 418.
 Goolaed Farrah, 19, 41; powers as a fortune-teller, 19.
 Coolis Mountains, the, 402, 405.
 Gorgora, 48; luxuriant vegetation, 48, 49.
 Gorilla, village of, 194, 197.
 Gote Gamo, 214.
 Goumer, village of, 131.
Grammodes, genus, 418.
Grammodes netta, 418, 420.
Grammodes stolida, 418.
 Gregory, Dr. J. W., 378, 384, 398, 404; note on the author's geological collection, 423.
 Grenoble, 428.
 Grevii, 49.
 Guaso Nyiro River, the, 351, 352, 357, 384.
 Gumba people, the, villages of, 308.
 Gumbisa, 412.
 Gunther, Dr. Albert, 251; report on collection of fishes made by the author, 377.
Gynanisa, genus, 412.
Gynantsa mala, 412.

HABR-AWAL, the, 15, 17, 18.
 Habr-Girhagis, the, 15.
 Habr-i-erde, 24.
 Habr-Toljala, the, 15.
Halcyon semicerulea, 126.
 Halya, Mount, 164.
 "Hammer" tree, the, 308.
 Handudu, 162, 163.
 Harar, 29, 50, 60, 371.
 Hareri, 165.
 Hargesa, expedition arrives at, 18; 24, 399, 402.
 Hari Berrois, 43, 44, 46.
Harpactira chordata, 386.
 Hartebeests, Coke's, 212, 238, 311; Swayne's, 213; 221, 229, 234, 291, 292, 298, 324.
 Hassan, Haji, old follower of Donaldson Smith, 6; description of, 6; characteristic anecdote of, 7; 15.
 "Haud," the, description of, 18.
 Hawash, the, 229.
 Hawatu hills, the, 65, 68, 101, 105.
 Hawayi Somalis, the, 185, 230.
 Hazach Jarro, 71, 72, 73, 76, 91, 97.
 Heilprun, Professor, 84.
Heliocopris coriaceus, 449.
Heliocopris donaldsoni, 448.
Heliothidae, family, 414.
Heliothis, genus, 414.
Heliothis armigera, 414.
Heliothis separata, 414.
Henucha, genus, 412.
Henucha hansalii, 412.
Hermippus loricatus, 387.
 Herons, 126, 253, 328.
 Hersi, 30, 339.
 Heterocephalus, 22; description of, 22, 23.
Heterocephalus Glaber, 23.
Heterocera, sub-order, 408.
 Heuglin, 452.
 "Hig," 27.
 Higo, 450.
 Hiloaine, 126.
 Hindi, Mohammed, 4.
 Hippopotami, 39, 238, 251, 333.
 Hohnel, Lieutenant von, rectifies errors in Count Teleki's map, 247: way to Lake Rudolf, 253; visits the Buma tribe, 298; 331, 424.
 Hojes, Count, expedition of, 26.
 Holland, W. J., list of the Lepidoptera Heterocera collected by the author, 408.
Hookoo, Lake, 165.
 Hoori, 135.
 Hornbill, 362.
 "Hura," the, 27.
 Husein, 15, 138.
 Hyenas, 20-22, 106; wonderful strength of, 119; fighting with lions, 145; 293, 340.
Hypena, genus, 418.
Hypena abyssinialis, 418.
Hypena, sp. ? 418.
Hypenidae, family, 418.
Hypercompa tigris, 410.

 IBIS, 126, 231, 253.
 Idris, Haji, 25, 38, 39, 52, 66, 70, 71; threatened desertion of, 99; hatred for Salan, 99; 109, 122, 196, 197, 220, 235, 239, 291, 298, 347.
 Illahni, village of, 83, 88.
 Ime, 2, 26, 371.
 Isman, 193.
 Italians, crushing defeat at Abba Girma, 369.

 JAMES brothers, the, expedition to Bari, 120, 129.
 Jan Jams, the, 88, 177, 215, 223, 229, 230; great mountain of, 231.
 Jeratu, the, country of, 215; description of, 230.
 Jilo Nubonna, 48.
 Jima, Mount, 185.
 Jones, Malcome, English Resident at Bulhar, 4.
 Jordan, Dr. Karl, note on the collection of Coleoptera, 447; note on collection of Carambycidæ, 452.
 "Journal of Botany," the, 369.
 Juba districts, the, 371.
 Jub River, the, 2, 88, 105, 106, 150, 153, 154; crossing, 155; 178, 229, 255, 319, 352, 372, 405.
 Jum Jum, 88.
 Jurassic ammonites, 424.

 KACHH JURA, the, 427.
 Kaffa, 66; mountains of, 319.

Kaldash, Mount, 111, 113, 114, 131.
 Kal Wena, the, 176.
 Karanli, village of, 152.
 Karayu Boran, the, 177, 206.
 Karaha, 40, 64, 108, 167, 170, 186, 189,
 190, 194, 222, 291, 294, 328, 339.
 Katrol group, the, 427.
 "Kedi," the, 27.
 Keltie, J. Scott, article on "The Partition of Africa," 370.
 Kenya, Mount, 294, 358.
 Kere people, the, 297; village of, 303; description of, 303, 304; threaten to attack the expedition, 305; women of, 307; ethnographical objects from, 442.
 Kili-ma-njaro, ethnological objects from, 384, 430.
 Kimbar, 347, 348.
 Kinaani, 398.
 Kingfisher, blue, 126.
 Kirby, 409.
 Kiamayo, 178, 351.
 Kiewahili, 153.
 Kobi tribe, the, 320.
 Kodo tribe, the, 308.
 Kolela, the, 176.
 Konso Mountains, 223, 226, 229.
 Konso tribe, the, 177, 211, 215, 229; gardens belonging to, 238; compared with the Amara, 239; ethnographical objects from, 437; list of words spoken by, 444.
 Koori, Mount, 164.
 Korokoro, 374.
 Koroli, Mount, 351, 352.
 Kudu, greater, 167.
 Kudu, lesser, 141, 144, 213.
 Kulama, chief, 266.
 Kuli tribe, the, 277; description of, 278; at war with the Bunno, 278.
 Kulol, Mount, 294, 346, 347; desolate surroundings of, 349; 353.
 Kurava Wells, 412.

Labeo gregorii, 384.
 Lafarug, 16.
 Lafkei, 24, 25, 26, 27, 42.
 Laga, Tug, 106, 107.
 Lagoisi, 292, 296, 298, 302, 304, 314.
 Laikipia, lavas of, 425.
 Lalafto, 365.

 Lamellibranch, 423.
Lamponyx punctifrons, 404.
 Lamu, 365.
Laniarius poliocephalus, 126.
 Larks, new, discovered by the author, 127.
 Lasamia, 354.
Lasiocampidae, family, 413.
 Le, curious wells of, 185, 187, 193.
 Leikipia, natives of, 351.
 Lenja, settlement of, 243, 244, 245.
 Leopard drive, a, 36, 37.
 Leopard hunting, 169, 174.
Lepidoptera Heterocera, list of collection made by the author, 408.
Leprous fischeri, 400.
Leprous irritatus, 400.
Leucaniidae, family, 414.
 Liban, 240.
 Lion hunting, 20-22, 32-36, 119, 129, 142, 144, 163, 164, 238.
 Lions fighting hyenas, 145.
Liparidae, family, 412.
Liparis adspersa, 412.
Lithosiidae, family, 411.
 Loga, 404.
 Loke, 83.
 London, 5; the author sails from, 6.
 Longendoti, Mount, 332.
 Longendoti Mountains, the, 294.
Lophiomys imhausi, 64.
Lophiomys Smithii, 64.
 Lorian Swamp, the, 358.
 Loroghi Mountains, the, 424.
Loxosceles rufescens, 386.
Loxosceles Smithii, 386.
Ludia hansalii, 412.
 Lugard, Captain, 170.
 Luku, 50; amusing the inhabitants of, 51.
 Lummo, 401.
 Lummo, Tug, 28, 37.
Lycosa (Trochosa) ferox, 390.
Lycosa raffrayi, 390.
Lycosa tarentulina, 390.
Lycosidae, family, 390.
 Lygop, the, forefathers of the Masai, 291.

Macaria amandata, 418.
Macariidae, family, 418.
 McConkey, Charles, Agent at Aden, 4, 5.

Mada Garci, well of, 141, 142.
 "Madura," the, 367.
 Mala tribe, the, 320.
 Mali tribe, the, 277.
 Mana River, the, 88.
 Marbur, 154.
 Marle tribe, the, 252.
 Marsabit, Mount, 351, 352, 353, 359, 423.
 Marshy Lake, 423.
 Masai, the, 288; the Lygop the fore-fathers of, 291; 353, 354.
 Masterson, William M., 368.
 Mataro tribe, the, 240.
 Mata Safaro, 163.
 Mbarak, 366.
 Mecarini, 365.
 "Megada," 240.
Megamyrmeicum holosericeum, 387.
 Mega people, the, 319.
 Mela tribe, the friendly and interesting, 314; description of, 314; ornaments of, 315; further description of, 320; ethnographical objects from, 443.
 Melindi, 366.
 Menelek, son of Solomon, Abyssinians claim descent from, 81.
 Menelek, Emperor, 62, 63, 71, 78, 81; the author sends letter to, 81, 93; refuses to allow expedition to proceed, 99; 100; grants permission for expedition to proceed, 102; treachery of, 106; surrender of Italian claims to, 369; moral and political necessity of subduing, 371-374; French translation of letter to the author from, 455.
Menemerus brevipalpus, 391.
 Merka, 154, 230, 373.
Merops nubicus, 132.
Merops superciliosus, 152.
 Mesozoic deposit, 424.
Metachrostis, genus, 415.
Metachrostis acclivis, 415.
Metachrostis africana, 415.
 Midgans, the, 15; description of, 15.
 Milmil, 2, 7, 22, 114, 129.
 Milmil, Tug, 19.
 Mimosa-trees, umbrella, 240.
 Mireh, 26, 115.
 Mkanumbi, 366, 404.
 Modisha, 154, 230, 373.
 Moga, 171; death of, 195, 199.
 Mohammed, 286.
 Mombasa, 100, 297, 370, 373.
 Momingot, wells of, 138.
 Monkeys, 287, 311.
 Montejunto beds, in Portugal, 428.
Mormyrus zambanenje, 385.
 Moths, African, 408.
 Mullet, 231.
 Muritu tribe, the, 308.
 Murle tribe, the, 296; villages of, 299, 302; disgusting appearance of the women of, 299; description of, 303.
 Murtu people, the, 298, 308, 320.
 NATURAL-HISTORY specimens, 131, 136, 152, 224.
 Navigator Islands, 414.
 Ndera, 364.
Nephila pilipes, 387.
Nephila sumptuosa, 387.
 New Antoto, capital of Abyssinia, 81, 94, 97.
 Ngare Dabasch tug, 346.
 Ngatana, 381.
 Nianam River, the, 229, 294, 296, 298, 299, 300, 308, 310, 316, 319, 373.
 Night Jhar, 24.
 Nile River, the, 384.
 Njyiro, Mount, 353.
Noctua armigera, 414.
Noctua melicerta, 417.
Noctua stolida, 418.
Noctues, 414.
Noctuidæ, family, 415.
 Norway, 1, 66.
Nyctemera hymenæa, 411.
Nyctemeridæ, family, 411.
 OBOCK, 373.
Ocyale atalanta, 390.
Odontopyge, genus, 405.
 Ogaden country, the, 20, 119.
 Ogaden Somalis, the, 18, 109; raids upon the Gallas, 111; villages of, 117, 121; 125, 126, 129, 133.
 Ola, the Boran girl, 245, 246, 247, 266; courtship of, 270; marriage ceremony of, 271.
 Omar Amaria, Sultan of Witu, 366.
Ommatophoridæ, family, 417.
 Omo River, the, 213; theories regarding, 229; 232, 298, 319.

Omo valley, the, 423.
Onthophagus harpax, 450.
Onthophagus smithi, 450.
 Oomia Group, the, 428.
Ophideres, genus, 417.
Ophideres chalcogramma, 417.
Ophideridae, family, 417.
Ophiusa, genus, 417.
Ophiusa melicerta, 417.
Ophiusidae, family, 417.
 Oppel, 427.
 Ormerod, Rev. Robert, author's meeting with, 364.
Oryx, 30, 49, 107, 108, 109, 115, 116, 140.
Oryx beisa, 17, 238.
 Ostriches, 13, 30, 212, 213, 238.
 Oto Dibo, village of, 266.
 Oushe Burde, 48.
Oxyopes baccatus, 390.
Oxyopidae, family, 390.

PALÆOZOIC deposit, 424.
Pandesma, genus, 416.
Pandesma quenevadii, 416.
Parabuthus granimanus, 402.
Parabuthus heterurus, 402.
Parabuthus hunteri, 402.
Parabuthus liosoma, 402.
Paracleobis ingripalpis, 395.
Parauchmis, genus, 414.
Parauchmis smithii, 414, 420.
 Pavesi, 392.
 Pelicans, 328.
 Percival, Capt. C. J., R. A., 28.
 Perim Island, 403.
Perisphinctes Adelus, 426.
Perisphinctes alterneplicatus, 427.
Perisphinctes bathyplocus, 427.
Perisphinctes Bevuchi, 427.
Perisphinctes denseplicatus, 428.
Perisphinctes frequens, 427.
Perisphinctes torquatus, 428.
 Permocarboniferous rocks, 424.
 Peters, Mt., 381.
Pectenia arabica, 391.
Pectenia fasciiventris, 391.
Pectenia bicostata, 391.
Pectenia heterolepis, 391.
Pectenia pulchra, 391.
Pectenia striata, 391.
Phalaena (Noctua) Latona, 417.

Philagathes bipartitus, 453.
Philagathes latus, 452.
Philagathes wahlbergi, 452.
 Phillips, Mrs. Lort, 424.
Phycitidae, family, 419.
Pisnuridae, family, 389.
Platythomisi heraldici, 388.
Platythomisus sexmaculatus, 388.
Plexippus paykulli, 391.
 Plover, 253.
 Pocock, R. I., 386, 392.
 Pocomos (river men), 364.
Polydesma, genus, 416.
Polydesma smithii, 416, 420.
Polydesmidæ, family, 416.
Polypteros bichir, 332, 378.
 Post-Jurassic volcanic rocks, 424.
Psammobius, 447.
Pseudocryptops walkeri, 403.
Pyromelana franciscana, 126.

QUENSTEDT, 428.

RAMADAN, teachings of, 163.
 Ras Dargue, 63.
 Ras MacKonnen, 23.
 Ravenstein, E. V., 368.
 Reitu, the, 106, 108.
 Rendile tribe, the, 191, 349; village of, 350; description of, 351; ethnographical objects from, 443.
 Rer Hammer, the, 125, 126.
 Rer Mogusa, the, 176.
 Reshiat tribe, the, 291; ethnographical objects from, 442.
Rhaphidopsis guttata, 453.
Rhax ornata, 396.
Rhax philippin, 396.
Rhax smithii, 396.
 Rhinoceroses, the, activity of, 109; 179, 213, 221, 226, 229, 232, 234, 238, 251, 311, 327, 332, the promenade of, 339-342, 347, 348, 350, 359, 360.
 Rhinoceros shooting, 30, 31, 108, 109.
Rhynchonella subtetrahedra, 423, 424.
Rhystia paucidens, 403.
 Rites, effect of certain, 140.
 Rift Valley, the, 425.
 Rogers, Capt. A. L., 366.
 Roko, 48.
 Royal Geographical Society of London, the, 4, 110, 225, 368.

" Royal Geographical Society's Journal," the, 110.

Rudolf, Lake, difficulty in reaching, 2; Donaldson Smith's plans for an approach from the east, 4; Count Teleki's line of march from the south, 4; universally thought impossible to reach, 5, 56, 63, 97, 102; chances against reaching, 110, 118; specimens of fish, 231; Lieutenant von Höhnel's way to, 253; in sight at last, 289; description of, 294; the many failures to reach, 295; plants growing along eastern shore of, 328; fishes from, 377.

Rusia tribe, the, discovered by Count Teleki, 291; people of, 295; subdued by their neighbors, 296; weapons of, 297.

Ruspoli, Prince, hostility towards the Gallas, 2; line of march of, 150; 152, 153; killed by an elephant, 214; 228, 237.

Russians, the, 371.

SABAKI valley, the, 424.

Senura, genus, 410.

Senura lineata, 410.

Saet, 287.

Sahara, Eastern, 378.

Sakuyu, the, 176, 177; ethnographical objects from, 434.

" Salab," 27.

Salan Mohammed, 25; fidelity of, 99; hatred of Idris for, 99; important commissions intrusted to, 110, 130; attacked by natives, 135; succeeds in returning to camp, 136, 137; 142, 174, 175, 313.

Sambur tribe, the, 291.

San Kural, 411.

San Kural, valley of, 180.

Saturnia, genus, 413.

Saturnia Kunzii, 413.

Saturnia Maia, 412.

Saturnia smithii, 413, 420.

Saturnia Zaddachi, 412.

Saturniidæ, family, 412.

Savages, method of expressing their emotions, 161.

Scarabæidæ, 448.

Schists, 423.

Sciurus galanana, 152.

Scorpio bellicosus, 397.

Scorpio cavimanus, 397.

Scorpio gregorii, 398.

Scorpiones, order, 397.

Scorpio phillipsii, 398, 399.

Scorpio Smithii, 398.

Scutigera rugosa, 403.

Sealy, Lieutenant-Colonel, Political Agent at Aden, 8.

Secretary bird, 328.

Secusio, genus, 411.

Secusio hymenæa, 411.

Seedy boys, the, 129.

Selenopes aegyptiacus, 388.

Senegal antelopes, 291.

Sepidium crassicauda, 447.

Sessabane, 22; luxurious vegetation about, 23, 24.

Setina, genus, 411.

Setina imminuta, 411.

Shan, Mount, 164.

Sharpe, Dr. R. Bowdler, 93, 369.

Shebeli River, the, 2, 26, 29, 36, 37, 38, 42, 43, 44; description of natives living near, 45; 48, 49, 51, 56, 66, 94, 99, 100, 101, 106, 107, 108, 109, 111, 114, 121; tribes along the banks of, 129; divides into three branches, 129; 138, 150, 152, 158, 371, 373.

Sheikh Ali, 50, 56.

Sheikh Husein (the man), tomb of, 52, 60; story of, 59-61.

Sheikh Husein (the town), 43, 46, 49, 50, 51; first view of, 52; women of, 55; 57; description of the people, 61; description of the town, 61; 66, 67, 72, 81, 88, 92, 102, 158, 229.

Shipp, I. W., note on the collection of *Scarabæidæ*, 448.

Shoa, 78, 371.

Shoan Mountains, the, 371.

Shoans, the, 68, 69, 70.

Shrike, yellow-breasted, 126.

Sibbe, 24.

Sicariidæ, family, 386.

Sillul Tug, 27, 37.

Silul, 399.

Silvestri, 407.

Simon, Eugène, "Order Araneæ," 386; 392.

" Sleepy Eyes," 286.

Smith, A. Donaldson, love of sport and adventure, 1; fishing and shooting

trip in Norway, 1; shooting trip to Somaliland with Dr. W. L. Smith, 1; encouragement from Capt. Swayne, 2; reaches Milmil, 2; plans for expedition through the Galla countries, 3; return to England, 4; preparation in geography and natural history, 4; assistance from the Royal Geographical Society and the British Museum, 4; joined by Mr. Fred Gillett, 4; interest in expedition expressed in London, 5; sails from London and arrives at Aden, 6; familiar faces, 6; completes arrangements for expedition at Aden, 7, sails from Aden, 8, arrives at Berbera, 8; secures food and camels for the expedition at Berbera, 9; expedition starts from Berbera, 10; expedition arrives at Hargeisa, 17; shoots a male lion, 20-22; systematic division of the company, 25, 26; expedition arrives at Bodele, 29, shooting rhinoceroses, 30, 31. a leopard-drive, 36, 37; difficulties in making progress, 37-39; capture of a native, 42; first view of Sheikh Husein, 52; politeness of the Abyssinians, 56; rebellion among the boys, 57; receives envoys from General Wal-da-Gubbra, 62; Gillett volunteers to visit him, 63; letter from Gillett, 65; General Wal-da-Gubbra insists on personal interview, 66; account of Gillett's journey, 67-72; meeting with Gillett, 67, 72; royal reception by General Wal-da-Gubbra, 73-81; letter to Emperor Menelek, 81; visits the "Caves of Wyndlawn," 82-91; farewell to General Wal-da-Gubbra, 92; enforced stay at Sheikh Mohammed, 93; beautiful new bird discovered, 93; surprised by the Abyssinians, 97; refuses to go to Wal-da-Gubbra, 98; refusal of Emperor Menelek to allow expedition to proceed, 99; present from Wal-da-Gubbra, 100, departure of the expedition, 101, Emperor Menelek grants permission for expedition to proceed, 102; Wal-da-Gubbra ordered to stop expedition, 106, Wal-da-Gubbra promises eternal friendship at parting, 107; shooting zebras, 107, scarcity of water, 108; hardships of African

travel, 108; march to Finik, 109; preparation of maps and articles, 110; chances against reaching Lake Rudolf, 110; plans for success, 110; slight attack of fever, 111; in Somaliland again, 113; elephant hunting, 113; meeting with Prince Boris, 114; Christmas Day in camp, 115; journey to Bari, 116; determination to succeed, 118; lion-hunting, 119; fishing, 123, 131, insubordination among the boys, 123; a native council of war, 123; new larks discovered by, 127; rifle vs. spear, 129; interesting journey along the Shebeli, 130; collecting natural-history specimens, 131; Gillett has to return home, 135; sends home a portion of natural-history collection, 136; whole camp comes down with malaria, 137; shoots aoule, 139; among the Dagodi, 143; experience with a wounded lioness, 146; joins lines of march of Prince Ruspoli and Captain Bottego, 150; adds to natural-history collection, 152; crossing the Jub, 154, among the Gere Gallas, 160; amusing ideas of the natives concerning, 161, 162; crosses the Dawa, 163; good-by to the Dawa, 166; shooting water-buck, 167; experience with a leopard, 169; dangers from lack of water, 171; elephant shooting, 174, 175, 221, 225; obliged to seize native camels, 175; in the country of the Boran, 177; suspicious actions of the natives, 185, 191; struck by lightning, 189; hunting gazelles, 190; a boy killed by the Boran, 193; attacked by the Boran, 195; an extinct volcano, 197; peace made with the Boran, 198; attacked by cavalry, 198, a promise of peace, 203; determines to explore Lake Aballa, 206; presents exchanged with King Abofilato, 211, 212; Amara hospitality, 215; assiduous labors of, 224; difficulty with the porters, 227; at Lake Abaya, 230-233; return to caravan, 234; attacked by a rhinoceros, 234; the Amara become angry at refusal to join in raid, 236; dangers in following the Galana River, 237; threatened revolt of the boys avoided, 237;



the Konso people, 239; camels show signs of poisoning from the Gendi fly, 240; difficulty in trading with the Tertala Boran, 243, 244; Ola, the Boran girl, 245; first sight of Lake Stephanie, 247; three days at Lake Stephanie, 248; new species of fish, 251; shoots a rhinoceros, 251; succeeds in joining Count Teleki's line of march, 253; discovery of Lake Donaldson, 254; expedition attacked by the Amar, 255-256; meeting with the Arbore, 257-261; expedition attacked by the Arbore, 264; the Dume pygmies, 272; threatened attack by the Bunno, 279-282; attempted raid by the natives, 284; Fourth of July in Africa, 285; wading barefooted down a river, 286; Lake Rudolf in sight at last, 289; greatest ambition of his life attained, 289; at Rusia, 292; shooting hartebeests, 292; on Lake Rudolf, 295; the Rusia people, 295; further explorations to the north of Lake Rudolf, 298; Elgume villages, 298; among the Murle, 299; attacked by fever and taken back to Rusia, 300; second attempt to journey to the north, 302; large Murle villages, 302; the Wandorobbo village of the Kères, 303; threatened attack by the Kères, 305; the Buki, 308; arrival at Gumba, 308; discouraging marching without guides, 310-312; expecting a night attack, 313; the Mela, 313; a hundred miles north of Lake Rudolf, 316; the Nianam River, 319; return journey to Rusia, 323; again at Rusia, 323; journey along Lake Rudolf, 324; shooting water-buck, 327; birds and fishes, 329; the Elmolo, 331; shooting rhinoceroses, hippopotami and water-buck, 332; narrow escape from an enraged elephant, 334-339: the rhinoceroses' promenade, 339-342; charged by an elephant, 342, 343; shooting a Jumbo, 343-345; journey to the east from Lake Rudolf, 346; suffering from thirst, 349; water found at last, 349; among the Rendile, 351; Marsabit, 352; "treed" by an elephant, 353; journey to Lasamis, 354; trapping giraffes, 354; shooting giraffes, 355; joins line of march of William Astor Chanler, 358; at the Guaso Nyiro River, 358: last plunge into the unknown, 360; on the Equator, 363; reaches the Tana River, 363; joyful meeting with the Rev. Robert Orme-rod, 363; delightful journey home-ward, 364, 365; kindness of Capt. A. L. Rojers, 366; Witu and Mkanumbi, 366; Lamu, 367; sails for Aden, 367; farewell to Africa and to his boys, 367; arrives in England, 368; presents his collections to various societies, 368; summary of the collections, 369; report on collection of fishes of, 377; Order Araneæ, 386; Solifugæ, Scorpiones, Chilopoda, and Diplopoda, 392; collection of Lepidoptera Heterocera, 408; geological collection of, 423; fossil Cephalopoda from Somaliland collected by, 426; catalogue of ethnographical objects from Somaliland and the Galla country collected by, 430; collection of Coleoptera, 447; collection of Scarabæidæ, 448; collection of Carambycidæ, 452.

Smith, E. A., 425.

Smith, Dr. William Lord, fishing and shooting trips to Norway and to Somaliland, 1; reaches Milmil, 2; 26.

Snyder rifle, the, discussed, 140.

Sobat River, the, 373.

Socotra, 396.

Soemmering's gazelles, 116, 121.

Sogida, Mount, 197

Solifugæ, Order, 392.

Solpuga, 394.

Solpuga brunnipes, 392.

Somaliland, 1; difficulty in exploring, 2; Captain Swain's expeditions into, 2; elevation and climate of, 10; dry mountainous region, 47; 109, 110; return to, 113; nomadic tribes of, 121.

Somali photographs, 158.

Somalis, the, 2, 4; characteristics of the race, 11; described by Gobat, 11; not noble warriors, 12; regard women merely as goods, 12; songs, clothing, and habits of, 15; the three great divisions of, 15; cruelty of, 19; neglect

of their aged women, 24; ethnographical objects from, 430.

Somali women, the, inferior position held by, 12; description of, 12; neglected in old age, 24.

Soorar Darde, 101.

Sowerby, J. de C., 428.

"Spanish bayonet," the, 27.

Sparassinae, sub-family, 388.

Sparassus argelastii, 389.

Sparassus levatus, 388.

Sparassus vestigator, 389.

Sparassus walckenaerii, 388.

Sphingidae, family, 412.

Sphingomorpha, genus, 418.

Sphingomorpha chlorea, 418.

Sphinx atropos, 412.

Sphinx cerbera, 409.

Sphinx eson, 412.

Spilosoma lineata, 410.

Squirrel, 152.

Squama diana, 388.

Starlings, 166; gray, 251.

Stephanie, Lake, 212, 213, 231, 237, 240; first sight of, 247; the Galana Amara River empties into, 247; description of, 248, change in lower end since visit of Count Teleki, 253; 297; fishes from, 377.

Stony Brook, 32.

Storks, 253.

Sun-bird, 161.

Sun-bird, yellow-breasted, 248.

Swahili caravan, a, 297.

Swayne, Capt. H. G. S., expeditions in Somaliland 2, 26.

Swayne's hartebeests, 213.

Sycamores, 154.

Synodontis geledensis, 382.

Synodontis punctulatus, 384.

Synodontis schal, 382.

Synodontis serratus, 382.

Synodontis smithii, 383.

Syntomis, genus, 409.

Syntomis cerbera, 409.

Syntomis simplex, 409.

TANA RIVER, the, 291, 294, 352, 359, 363, 373, 384.

Tanganika, 398.

Teal, 231.

Teleki, Count, line of march to Lake Rudolf, 4; wrong location of Lake Stephanie, 247; in error concerning the Marle tribe, 252; Dr. A. Donaldson Smith succeeds in joining line of march of, 253; discovers the Rusia tribe, 291; deterred from exploring north of Lake Rudolf, 297; 331, 332.

Teleki Volcano, 333.

Tenebrionidae, 447.

Tertala Boran, the, 239; difficulty in trading with, 243.

Tertala Mountains, the, 212, 223, 240, 241, 243.

Tertala plateau, the, elevation of, 243.

Tetragnatha nitens, 388.

Tetragonophthalma bilineata, 390.

Thalassius fimbriato, 390.

Thalassius (cteno) pallido, 390.

Thalassius unicolor, 389.

Thercladodes, 454.

Theretra, genus, 412.

Theretra celeris, 412.

Theretra eson, 412.

Thibet, 428.

Thomisidae, family, 388.

Thomisus alboliertus, 388.

Thomisus spinifer, 388.

Thompson's gazelle, 190, 238, 324.

Thyene imperialis, 391.

Tomals, the, 15; description of, 16.

Topi antelopes, 291.

Tortricidae, family, 419.

Trachytoid phonolite, 423.

Tring Museum, the, 452.

Tuff, 423.

"Tug," a, explanation of, 16.

Turaco, new species of, 316.

Turacus donaldsoni, 93, 95.

Turfa, 396, 399, 400.

Turfa, Tug, 29, 36, 37.

Turkana, 298.

Turkana tribe, the, 351.

Tzaro, 398.

UGANDA, railroad to, 374.

Ugogo, 397.

University of Pennsylvania, the, author's collection at, 345, 357, 430.

Uroctes limbata, 389.

Uroctidae, family, 380.

Uroplatus fischeri, 400.

Uettheisa, genus, 411.
Uettheisa pulchella, 411.
 Uunsi, 158, 160.

VICTORIA NYANZA, Lake, 374.
 Vulturine guinea-fowl, 65.

WAAGEN, 427, 428.
 Wabera River, the, 88.
 Wachago, the stream, 138.
 Wachalli tribes, the, 48.
 Wak, worshippers of, 176, 178, 262, 265; heathen ideas of, 271; 296, 297.
 Wakefield, Rev. Mr., missionary at Kismayo, 178.
 Wa Kuafi tribe, the, 291.
 Wal-da-Gubbra, General, sends envoys to meet expedition, 62; Gillett volunteers to visit, 63; insists on seeing Dr. Smith, 66; present to Gillett, 69; reception of Gillett, 70-72; royal reception to Dr. Smith, 73-81; description of, 76; family of, 76; 91; Dr. Smith and Gillett bid farewell to, 92; enforces delay of expedition, 93, 94; son of, 97; Dr. Smith refuses to go to, 98; present to Dr. Smith, 100; daughter of, 101; ordered by Emperor Menelek to stop expedition at all hazards, 106; promises eternal friendship at parting, 107.
 Walker, 414.
 Waller's gazelles, 165, 175, 185, 291.
 Wama district, the, 358.
 Wando country, the, 270.
 "Wandorobbo," 303.
 Wara Meda, the, 176.
 Warsama, the gun-bearer, 144.
 Wart-hogs, 168, 238.
 Warwai, villages of, 157, 158.
 Water-buck, hunting, 131, 163, 165, 167, 233, 252, 327.
 Watu Borans, the, 252.

Watu tribe, the, 252; description of, 252.
 Weapons, Somali, 133.
 Weaver-bird, gray, 248.
 Webi Ganana, the, see *Ganana River*.
 Webi Shebeli, the, see *Shebeli River*.
 Web River, the, 88, 143, 150, 151, 152, 405.
 White Jura, the, 428.
 White Nile, the, 320, 403.
 Wild dog, 19.
 Winchester rifle, the, discussed, 140.
 Witu, 365.
 Wolverton, Lord, expedition to Bari, 120, 129.
 Wyndlawn, Caves of, 82-91, 84-88, 150.

Xanthospilopteryx, genus, 408.
Xanthospilopteryx aisha, 409.
Xanthospilopteryx catarhodia, 409, 420.
Xanthospilopteryx incongruens, 408.
Xanthospilopteryx smithii, 408, 420.
Xanthospilopteryx superba, 408.

YABICH, 166.
 Yebirs, the, 15; description of, 16.
 Yero, the, 230.
 Yusif, 151, 167, 170, 356; attacked by a crocodile, and arm amputated, 359.

Zadariidae, family, 387.
 Zanzibar, circuit completed from Berbera to, 253.
Zebra grevi, tenacity to life, 107; 255, 291.
 "Zebra Hide," 287.
Zebras, 30, 49, 107, 109, 116, 213, 221, 229, 232, 234, 324, 340, 341.
Zebras, Burchell's, 238, 255.
 Zeila, 8, 424.
Zeria bicolor, 392.
Zeria persephone, 394.
 Zoological Society of London, the, 368.
Zygænidæ, family, 409.

7

m







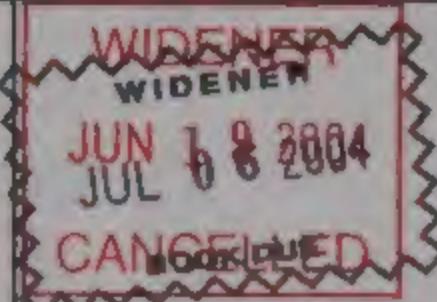


3 2044 024 430 852

The borrower must return this item on or before the last date stamped below. If another user places a recall for this item, the borrower will be notified of the need for an earlier return.

Non-receipt of overdue notices does not exempt the borrower from overdue fines.

Harvard College Widener Library
Cambridge, MA 02138 617-495-2413



Please handle with care.
Thank you for helping to preserve
library collections at Harvard.

